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An Analysis of State and Federal Policies
Affecting Major Energy Projects in
North Carolina's Coastal Zone

MAR 2 1 1983

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North Carolina
Coastal Energy Impact Program
Office of Coastal Management
North Carolina Department of Natural Resources
and Community Development

CEIP REPORT NO. 4 AUGUST 1981









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# Coastal Energy Transportation Study Phase II, Volume 3

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Affecting Major Energy Projects in
North Carolina's Coastal Zone

by
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The preparation of this report was financed through a Coastal Energy Impact Program grant provided by the North Carolina Coastal Management Program, through funds provided by the Coastal Zone Management Act of 1972, as amended, which is administered by the Office of Coastal Zone Management, National Oceanic and Atmospheric Administration. This CEIP grant was part of NOAA grant NA-80-AA-D-CZ149.

Project No. 80-07 Contract No. C-6041

August 1981

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#### PREFACE

This report summarizes work on the second phase of a three-phase study funded by the Coastal Energy Impact Program and conducted by the UNC Institute for Transportation Research and Education. Phase I of this study, conducted in 1980, identified and documented the transportation needs necessary to support a group of energy projects proposed for the coastal area of North Carolina.

Following a series of interviews with industry representatives, key officials in coastal counties, and various State agencies in mid-1980, major facilities were identified, energy use scenarios were developed, and transportation needs were assessed. Concurrent with these tasks, an impact assessment methodology was developed for conducting certain Phase II tasks.

The results of Phase I were documented in three reports:

- A technical report entitled "Coastal Energy Transportation Study: An Analysis of Transportation Needs to Support Major Energy Projects in North Carolina's Coastal Zone," Phase I Report, December 1980 (180 pages);
- 2. A summary report entitled "Coastal Energy Transportation Study: An Analysis of Transportation Needs to Support Major Energy Projects in North Carolina's Coastal Zone," March 1981 (30 pages); and
- 3. An executive summary report issued by the Office of Coastal Management entitled "Special Report: First Inventory of Coastal Energy Facilities Reported," April 1981 (2 pages).

All of these reports are available from The UNC Institute for Transportation Research and Education or the Office of Coastal Management in the North Carolina Department of Natural Resources and Community Development.

Phase II (September 1980-August 1981) is divided into two distinct parts:

- 1. An assessment of impacts of the Outer Continental Shelf (OCS) oil and gas exploration and production activity with emphasis on the transportation requirements and alternative locations for on-shore support base(s) in North Carolina, and
- 2. An assessment of impacts of coal exports from North Carolina with emphasis on the transportation requirements of alternative locations and capacities of coal terminals.

Phase III (September 1981-August 1982) is an assessment of impacts of transport and storage of all other energy feedstocks and products, including crude oil, refinery products, liquified petroleum gas, peat, wood, and biomass material. A more detailed analysis of coal transportation to North Carolina's ports will also be undertaken during Phase III. Other energy-related projects may be added at a later date.

This report is one of three volumes documenting the results of Phase II as described above. These three volumes are entitled:

- Coastal Energy Transportation Study: Volume 1, A Study of OCS Onshore Support Bases and Coal Export Terminals;
- 2. Coastal Energy Transportation Study: Volume 2, An Assessment of Potential Impacts of Energy-Related Transportation Developments on North Carolina's Coastal Zone; and
- 3. Coastal Energy Transportation Study: Volume 3, An Analysis of State and Federal Policies Affecting Major Energy Projects in North Carolina's Coastal Zone.

Scheduling of tasks was designed to permit the study team to complete key activities in advance of certain critical dates. For example, many of the tasks related to OCS activity in Phase II have been completed so that state, regional, and local decisionmakers involved in the OCS program will have output prior to August 1981, the scheduled date for OCS Lease Sale #56 by the Bureau of Land Management.

The movement of export coal shipments through North Carolina is now underway. The contract with Alla-Ohio Coal Company to ship three million tons annually through the State Ports Authority (SPA) facilities in Morehead City was announced in October 1980; and the first shipment of export steam coal left Morehead City for Holland on May 13, 1981. Although the situation regarding the development of energy projects is constantly changing, this report is based on the most up-to-date information available at the time of printing.

An additional, parallel task of this study has been the monitoring of the situation regarding all types of energy projects in the coastal zone. The dynamics of the other projects that will be included in Phase III, as well as those of the coal exports and OCS lease sale, are of interest.

Since this research project began in January 1980, a significant amount of activity has taken place in the North Carolina coastal zone with respect to proposals for new or expanded energy projects. These project proposals have been in response to changing economic conditions and dynamic corporate and private investment strategies. For example, since the Phase I report

was written, the following captions from Raleigh and Wilmington newspapers reveal the "shifting attitudes" surrounding the development of the Brunswick Energy Company (BECO) refinery in Brunswick County, across the Cape Fear from Wilmington:

11/18/80 "Building Refinery" 1/04/81 "Refinery, Smelter Debated" "U.S. Agency Not Taking Stand on Refinery" 1/28/81 "BECO, Environmentalists at Odds" 2/22/81 3/08/81 "Low Demand (for petroleum products) Closing Refineries" 4/28/81 "BECO to 'Re-evaluate' Brunswick Co. Refinery" "BECO May Consider Selling Refinery Project" 4/29/81 "BECO Drops Plans to Build Oil Refinery" 5/15/81

Continued monitoring of the local, state, national, and international situations that affect the potential of energy developments in North Carolina will be continued throughout this study.

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#### **ACKNOWLEDGMENTS**

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#### ABSTRACT

This volume of the Coastal Energy Transportation Study identifies and describes the policy framework which governs the development of coal export terminals and on-shore support bases for Outer Continental Shelf (OCS) oil and gas exploration in North Carolina's coastal zone. The requirements for environmental impact analysis for the energy facilities are discussed, followed by a description of federal and state requirements for the various necessary permits associated with development of these facilities. Particular attention is given to those permitting areas which may constitute the most significant impediments to development of the energy facilities, such as water and air quality, dredge and fill operations, construction of facilities affecting navigable waters, and Coastal Area Management Act (CAMA) permits for development in areas of environmental concern. The regulation of, and policies related to, the transportation infrastructure required to support these energy facilities is presented by transportation mode: water, rail, highway, and slurry pipeline.

The appendices include applicable sections of various state and federal statutes and regulations, policy guidelines, and permit criteria as well as an extensive bibliography.

The report is designed to function as a review of the existing policy framework affecting energy facility development and does not attempt to evaluate the effectiveness of those policies or to suggest regulatory alternatives.

#### 1.0 INTRODUCTION

The purpose of this report is to identify the policy framework which affects the development of OCS support bases and coal export terminals in North Carolina's coastal region. This review is essential in presenting a comprehensive picture of the institutional constraints which guide and limit development of these particular facilities. It should be emphasized that this review is an identification of policies affecting development of these facilities, and is not an attempt to evaluate the effectiveness of those policies or to suggest regulatory alternatives.

In its broadest sense, the word "policy" means a course of action or method of action selected from among alternatives and, in light of certain conditions, to guide present and future decisionmaking. Governmental policies are expressed in the form of laws, regulations, or official pronouncements by authorized public officials. At the state and federal level, a law is passed by the responsible legislature which generally authorizes a particular agency or agencies to administer that law through the promulgation of specific regulations. These regulations have the force of law and may be enforced by the agency through the use of quasi-judicial proceedings. It is sometimes the case that the enabling legislation will authorize one agency to promulgate the standards implementing the law and authorize another agency to administer This often occurs in the context of federal and enforce those standards. legislation, in which a federal agency will be designated to establish standards under the law, but a state agency will be allowed to administer the law subject to federal approval of the state's administrative program.

At the local level, local ordinances, regulations, and codes are passed for a variety of areas subject to local jurisdiction. Local regulations and ordinances which might affect the development of these facilities are multitudinous and, therefore, for purposes of this report will be considered only at a general level without reference to specific local regulations.

An administrative mechanism which is used frequently to implement legislative policy, and which will impact the development of OCS support bases and coal export terminals, is the permit process. Prior to undertaking any major development, the developer will be required to obtain various federal, state, and local permits. The administering agency may refuse to issue a permit for a particular development, or may impose certain conditions on the issuance of that permit, in order to assure compliance with existing laws and regulations.

The policy analysis is divided into two parts: policies affecting the development of the facilities themselves and policies affecting the transportation support for those facilities. It should be noted that although the

facilities are considered separately for purposes of this analysis, the OCS support bases and coal export terminals are themselves transportation facilities and are treated as such for purposes of the Coastal Energy Transportation Study.

The policy analysis which follows is not intended to be an exhaustive listing of all the policies which may impact the development of these particular energy facilities. Rather, it is designed to reflect those policies which will be the most significant. The laws and regulations which are discussed are those in existence at the present time and are, of course, subject to future change or modification.

#### 2.0 POLICIES AFFECTING ENERGY FACILITY DEVELOPMENT

#### 2.1 PLANNING PHASE ANALYSIS FOR PROPOSED PROJECTS

An industry desiring to locate a major project such as a coal exporting terminal or OCS support base in the coastal area would initially be directed to the State's permit coordinating agency, the Office of Regulatory Relations (ORR) in the Department of Natural Resources and Community Development (DNRCD). Once the ORR obtained the necessary project description and locational information from the industry, a voluntary permit coordination meeting may be set up in conjunction with the appropriate regional field office of DNRCD. At this meeting all of the state and local agencies which might be affected by the proposed development (including both permitting and reviewing agencies) would discuss possible permitting and siting problems with the potential applicant. The local land use plan would be consulted to determine if the proposed activity's location would be feasible, given the land use classification of the area and existing land use regulations (see Section 2.3.6). In addition, the ORR would provide the industry with a description of the permits required and copies of applications.

Generally, following this initial meeting, the industry will conduct its own feasibility analysis on siting and design alternatives based partially on information received from permitting agencies. The industry will be assisted through the conducting of early site visits made by field consultants of the primary affected state and federal agencies along with industry representatives. In the case of coal exporting terminals and OCS support bases, this site visit would probably be made by field representatives of the North Carolina Office of Coastal Management and the Army Corps of Engineers. They would make recommendations to the applicant on what permitting problems might be encountered and how to avoid those problems.

Once a tentative final site has been established, the industry must file the necessary permit applications. The ORR would probably meet again with the applicant to establish a permit schedule. (Note: if an Environmental Impact Statement (EIS) is to be prepared, the ORR may wait until the EIS is completed to schedule further permit requirements.) The timing of the permit process will vary according to the nature and scope of the project. During the entire process the ORR acts as the permit coordinating agency and may conduct periodic meetings to ensure the permit process is proceeding smoothly. 1

<sup>&</sup>lt;sup>1</sup>Schecter, Roger N., Chief of Permit Information and Assistance Section, Office of Regulatory Relations (DNRCD), personal interview, April 16, 1981.

#### 2.2 ENVIRONMENTAL IMPACT ASSESSMENT

Following a tentative final site selection by the industry, some type of environmental review of the proposed facility may be necessary.

### 2.2.1 Federal Requirements

The National Environmental Policy Act (NEPA) requires that an Environmental Impact Statement be prepared by the responsible federal agency for "major federal actions significantly affecting the environment." "Major federal actions" as defined under NEPA includes actions with major environmental effects which are subject to federal control and responsibility. Projects such as a coal exporting terminals or OCS support bases, which require federal permit approval and other federal regulatory control, could be considered major federal actions and thus fall within the ambit of NEPA's EIS requirements. If prepared, the EIS would also include an assessment of related secondary construction activity for these projects such as construction of rail spur lines, access roads, and pipeline or conveyor systems.

If there is more than one federal agency involved in the project, NEPA requires that a lead agency be designated to supervise preparation of the EIS for the entire project. The lead agency for the projects being considered here would probably be the Army Corps of Engineers since any construction work in or affecting navigable waters must be approved by the Corps through a permit process. The lead agency makes the final decision on whether or not to prepare an EIS, although other agencies with input into the permit review process (in this case--Fish and Wildlife Service, Environmental Protection Agency, and the National Marine Fisheries Service) may recommend that an EIS be prepared.<sup>3</sup>

Contacts at the Wilmington District of the Corps of Engineers indicate that it probably will not be necessary to prepare an EIS for most of the sites being considered for coal export terminals. The decision as to whether a project "significantly affects the environment" is often a subjective one, depending on the amount of dredging and construction necessary, as well as mitigation techniques to be used to offset environmental impact. Another key factor is the existing land use zoning scheme of the proposed site location. Presently many of the proposed sites are located in areas which are already zoned industrial. Construction of coal facilities or OCS support bases would not substantially alter the existing land use of the area, thus reducing the need for an EIS. Finally, an EIS may be mandated based on a perceived threat of legal challenge to a particular project or anticipation of a high level of public interest in a particular project.

If the Corps decides that an EIS will not be required, a "negative declaration" is issued. In the absence of an EIS, the Corps would require

<sup>&</sup>lt;sup>2</sup>National Environmental Policy Act of 1969, 42 U.S.C. §4321.

<sup>&</sup>lt;sup>3</sup>40 C.F.R. §1501.5.

<sup>&</sup>lt;sup>4</sup>Hollis, Charles, Permits Branch U.S. Army Corps of Engineers, Wilmington, N.C., telephone conversation, April 22, 1981.

that the applicant itself submit an environmental assessment of the proposed project. This is a much less formal document which describes the specifics of the site, the operational approach to the project and, generally, what changes will be made to the existing environment. This environmental assessment, like an EIS, would include consideration of any secondary activity associated with the project, such as rail spur or access construction. The environmental assessment is generally circulated to other affected agencies, who may recommend that an EIS be prepared for the project if they feel it is warranted. Nevertheless, the final decision to prepare an EIS rests with the Corps.

If the Corps decides that an EIS is necessary for a proposed project, this would include the preparation of draft and final statements. the preparation of the EIS, a "scoping" meeting is often held in which affected agencies will scrutinize the project and may suggest narrowing the focus of the EIS. The applicant industry may be required to supply the Corps with various data to aid the Corps in its environmental review. Other federal, state, and regional agencies with jurisdiction or special expertise in the environmental areas potentially involved will review and comment on the statements which are prepared. 5 In addition, a public hearing is generally held following the preparation of the draft EIS in order that formal objections and other comments may be received before initiating the project. The comments received both from the public hearing process and the agency review process should be incorporated into the final EIS. The EIS document itself must contain a consideration of alternative sites to the one being tentatively considered, short- and long-term environmental impacts, and irreversible commitments of resources which would be involved in the proposed activity. 6 The final EIS is used as a reference in both the permit decision process and the permit coordination process.

## 2.2.2 State Requirements

Under the State Environmental Policy Act (SEPA) any project which involves the expenditure of state monies for actions which may significantly affect the quality of the state's environment must submit either an environmental impact statement or negative declaration. The North Carolina EIS would probably not be required for coal terminals or OCS support bases since state monies would not be expended for these projects. However, SEPA also allows local governments by ordinance to require an EIS for certain development activities.

A second and distinct form of state environmental review is the environmental impact assessment (EIA) which is required under G.S. §143B-437 for any "new or expanding industry or manufacturing plant" locating in North Carolina. According to the terms of the statute, an EIA shall be conducted by the N.C.

<sup>&</sup>lt;sup>5</sup>42 U.S.C. §4332 (C).

<sup>&</sup>lt;sup>6</sup>42 U.S.C. §4332 (C).

<sup>&</sup>lt;sup>7</sup>G.S. §113A-1.

Department of Commerce in conjunction with DNRCD concerning the effects on the State's natural and economic environment of any such new or expanding industry. The EIA, which will discuss the project in terms of alternate site considerations, will be required in cases where a project or projects are deemed to be of significant nature and impact.<sup>8</sup>

#### 2.3 PERMITTING

Prior to initiation of large scale projects such as OCS support bases or coal export terminals, state and federal law requires that a variety of environmental and health permits be obtained. Denial of these permits can prevent the siting of a facility in a particular location, or alter construction requirements. Table 1 gives an overview of the state and federal permits which may be required before beginning construction on support bases or coal terminals. These permits are discussed in detail in the following sections.

## 2.3.1 Dredge and Fill Operations

The construction of coal exporting terminals or OCS support bases will probably require some type of dredge and fill activity, unless the facilities are located at an existing port facility. Moreover, dredge and fill activity will definitely be required for any channel deepening associated with the projects and possibly required for construction of rail spurs or access roads.

Prior to beginning any dredge and fill work in coastal waters, the industry must obtain federal and state dredge and fill permits. In North Carolina, a joint application form may be filed with either the Office of Coastal Management in Raleigh or the regional field office. This joint application is an application for the following permits: Corps of Engineers Section 10 and 404 Permit, State Dredge and Fill Permit, Easement to Fill on State-Owned Lands, 401 Water Quality Certification, and CAMA Major Development Permit. The first three of these permits will be discussed in this section. The 401 Water Quality Certification will be discussed in Section 2.3.2 and the CAMA Major Development Permit will be discussed in Section 2.3.6. It is anticipated that the construction of both coal export terminals and OCS support bases in undeveloped areas will require all of these permits.

## 2.3.1.1 Federal Requirements

The U.S. Army Corps of Engineers is the permitting agency for dredge and fill activities in the waters of the United States. The Corps' regulatory authority is derived from the Rivers and Harbors Act of  $1899^{10}$  and the Federal Water Pollution Control Act Amendment of 1972 (FWPCA). Under Section 10 of the Rivers and Harbors Act of 1899, the Corps must issue a

<sup>&</sup>lt;sup>8</sup>G.S. §143B-437.

<sup>&</sup>lt;sup>9</sup>See also North Carolina Environmental Permit Directory, Office of Regulatory Relations, NCDNRCD, 1981.

<sup>&</sup>lt;sup>10</sup>33 U.S.C. §401.

<sup>&</sup>lt;sup>11</sup>33 U.S.C. §1251.

TABLE 1. PERMIT REQUIREMENTS FOR COAL EXPORT TERMINALS AND OCS SUPPORT BASES

			Permit Requirements <sup>C</sup>				
Permits <sup>a</sup>	Administering Agency <sup>b</sup>	Statutory	Coal Export Terminal	ocs			
Permits	Agency	Authority	rerminai	Support Base			
Federal							
<ul> <li>Dredge and Fill (§ 10 and § 404)</li> </ul>	ACE	33 U.S.C. § 1251 33 U.S.C. § 401	t	t			
• NPDES <sup>d</sup>	DEM	33 U.S.C. § 1251 G.S. § 143-215.1	†	*			
<ul> <li>401 Water Quality Certification<sup>d</sup></li> </ul>	DEM	33 U.S.C. § 1251 G.S. § 143-215.1	t	t			
<ul> <li>Dumping of Dredged Materials into Inland and Ocean Waters (§ 103)</li> </ul>	ACE	16 U.S.C. §1432					
• PSD <sup>d</sup>	DEM/EPA	_	*	*			
• NSPS <sup>d</sup>	,	42 U.S.C. § 7473		*			
	DEM/EPA	42 U.S.C. §7411					
• NESHAPS <sup>d</sup>	DEM/EPA	42 U.S.C. §7412					
<ul> <li>Construction Affecting Navigable Waters (§ 10)</li> </ul>	ACE	33 U.S.C. §401	†	†			
<ul> <li>Alteration of Bridge Clearance</li> </ul>	CG	33 U.S.C. §401	*	*			
State							
State Dredge and Fill	OCM	G.S. § 113-229	t	t			
Easement to Fill	DOA	G.S. § 146-6 (c)	†	t			
Non-discharge	DEM	G.S. § 143-215.3	*	*			
Well Construction	DEM	G.S. §87-88	*	*			
Water Use	DEM	G.S. § 143-215.15					
Public Water Supply	DHR	G.S. § 130-166.43	*	*			
Sedimentation Control Plan	DLR	G.S. § 113A-54	†	t			
Air Quality	DEM	G.S. § 143-215.108	t	t			
CAMA Major Development	OCM	G.S. § 113A-118	†	t			
<ul> <li>Hazardous Waste Facilities<sup>d</sup></li> </ul>	DHR	G.S. § 130-166,210					
Solid Waste Disposal Site	DHR	G.S. § 130-166.18	*	*			

### aPermits:

NPDES: National Pollutant Discharge and

Elimination System

PSD: Prevention of Significant Deterioration NSPS: New Source Performance Standards NESHAPS: National Emission Standards for Hazardous Air Pollutants

#### b<sub>Agencies:</sub>

ACE: Army Corps of Engineers

EPA: Environmental Protection Agency

CG: U.S. Coast Guard

DEM: N.C. Division of Environmental Management

OCM: N.C. Office of Coastal Management DOA: N.C. Department of Administration DHR: N.C. Department of Human Resources

DLR: N.C. Division of Land Resources

c † Permit will probably be required

\*. Permit will possibly be required Note: The necessity for obtaining permits will vary according to whether the proposed site is relatively developed or undeveloped. The estimate of permit requirements shown in this table is based on a scenario for a relatively undeveloped site. Examples of undeveloped sites for each type of energy facility are site C-8 for a coal exporting terminal and site C-13 for an OCS support base.

<sup>d</sup>Authorizing legislation for these permits is federal; administration of the permit process has been delegated to the state.

permit for (1) virtually all excavation work within U.S. navigable waters, (2) discharge of dredged material or fill into navigable waters, and (3) placement of structures such as piers, wharves, docks, etc., in areas of navigable waters. Section 404 of the FWPCA requires a Corps permit for the discharge of dredged or fill materials into the waters of the United States. There are two principal differences between Section 10 and Section 404 provisions: (1) Section 404 applies only to the discharge of dredge materials whereas Section 10 applies to a broad range of activities such as excavation and construction regardless of whether any discharge has occurred, and (2) Section 404 applies to the "waters of the United States" whereas Section 10 applies only to work affecting navigable waters. In all likelihood, both a Section 10 and a Section 404 permit would be required for dredging and dredged material disposal associated with the construction of coal export terminals and OCS support bases.

The regulatory policies of the Corps in considering permit applications call for review by a variety of other agencies in addition to the Corps. Table 2 describes the various policies which guide the Corps in their review and also describes the review role of other agencies. If an EIS is prepared by the Corps for the proposed activity, the review comments by other agencies in the EIS process would be used in the permit decision.

The Section 10 and 404 permits which are issued by the Corps would apply to all dredge and fill activity associated with the project, including any dredge and fill work for construction of rail spurs, access roads, facility construction, and channel deepening. Generally, one Section 10 permit and one Section 404 permit will be issued for the entire project activity within the Corps' jurisdiction.

## 2.3.1.2 State Requirements

In addition to the federal permits required, the State Dredge and Fill Act<sup>12</sup> mandates that a permit must be obtained from the Office of Coastal Management before engaging in any dredge and fill activities in estuarine waters, marshlands, tidelands, or state-owned lakes. Any dredge and fill operations associated with the sites designated as possible coal export terminals or OCS support bases would probably fall within this specified area and thus require the State Dredge and Fill Permit.

Based upon the regulatory criteria promulgated under the Act (see Appendix A.1), the Office of Coastal Management will approve the permit, issue the permit with conditions, or deny the permit.

The Corps of Engineers has recently agreed to issue a "general permit" covering most small dredge and fill projects. In effect, the general permit means that the Corps will not have to engage in separate review procedures to issue Section 10 and 404 permits if the state has issued the following for a particular project: State Dredge and Fill Permit, CAMA Permit, and

 $<sup>^{12}</sup>$ G. S. §113-229. Appendix A.1 gives a description of the law and the standards and regulations promulgated pursuant to the law.

# TABLE 2. U.S. ARMY CORPS OF ENGINEERS POLICIES FOR REVIEW OF SECTION 10 AND SECTION 404 PERMIT APPLICATIONS

Public Interest Review. A process weighing conservation, economics, aesthetics, general environmental concerns, historical values, fish and wildlife values, flood damage prevention, land use, navigation, recreation, water supply, water quality, energy needs, safety, food production, and the needs and welfare of the people. Four criteria are applied to any proposal covered by the program:

- The relative public and private need.
- The desirability of using appropriate alternative locations and methods.
- The extent and permanence of the beneficial and/or detrimental effects on public and private uses to which the area is suited.
- The probable impact of the single proposal in relation to the cumulative effect of existing and anticipated work or structures in the area.

Effect on Wetlands. Close scrutiny is given to any activity in wetlands. EPA sets guidelines on dumping of dredge material into wetlands and the Corps has a general policy of looking first to a high ground before dumping into either water or wetlands. (Note: Both Wilmington and Morehead City have high ground alternatives.)

Fish and Wildlife. Under the Fish and Wildlife Coordination Act (16 U.S.C. § 661) the U.S. Fish and Wildlife Service reviews any project which requires modification of a body of water. The FWS may recommend mitigation procedures or conditions to reduce the impact a project may have on fish and wildlife. In addition, the Endangered Species Act of 1973 (16 U.S.C. § 1531) gives both the FWS and the National Marine Fisheries Service the authority to review applications for federal permits for their impact on certain listed plant and animal species and their habitats.

Water Quality. Under Section 404 of the Federal Pollution Control Act amendments of 1972, and Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (16 U.S.C. §1432) the EPA may set guidelines for the discharge of dredged materials into inland or ocean waters or wetlands. EPA analyzes selected permit applications for compliance and may request denial of a permit or add conditions to the granting of permits. (Note: As stated above, the fact that Wilmington and Morehead City have high ground alternatives for dredge disposal precludes the need to dump dredged materials into water areas.)

Historic Sites. The National Historic Preservation Act of 1966 (16 U.S. §470) states that federally permitted projects cannot impact important historic or cultural sites unless no alternatives exist. In North Carolina all permit applications are reviewed by the North Carolina State Historical Preservation Officer under this legislation.

Activities Affecting Coastal Zone. Through the consistency requirements of the Coastal Zone Management Act of 1972 (16 U.S.C. §1451), the North Carolina Office of Coastal Management must certify a federally permitted project as consistent with coastal policies (see Section 2.3.6).

Activities in Marine Sanctuaries. Certification by the Secretary of Commerce is required before permit approval in Marine Sanctuary areas. (Marine Protection, Research and Sanctuaries Act of 1972).

Interference with Adjacent Properties or Water Resources Projects. This consideration relates primarily to upstream and downstream effects of protective work, and other nuisance effects of work on other public and private rights.

Source: 33 C.F.R. § 320; Environmental Planning for Offshore Oil and Gas. Volume IV: Regulatory Framework for Protecting Living Resources. Conservation Foundation, prepared for the U.S. Fish and Wildlife Service, March 1978, pp. 38-39.

401 Water Quality Certification. The Corps permits will automatically be granted following issuance of the state permits. Nonetheless, interviews with Corps representatives indicate that complex projects such as OCS support bases and coal export terminals would fall outside the scope of the general permit. Therefore, they would require separate review at both the federal and state levels for issuance of the respective dredge and fill permits. 13

Finally, the state requires that an Easement to Fill be obtained from the North Carolina Department of Administration for all filling activities in navigable waters where land is raised above the normal high water mark. 14 The State has title to all lands below the mean high water mark, but allows riparian owners to place fill in navigable waters immediately adjacent to their property by obtaining this easement. These easements are rarely denied. 15

## 2.3.2 Water Quality

## 2.3.2.1 Federal Requirements

Section 402 of the Federal Water Pollution Control Act of 1972 authorized the Environmental Protection Agency to administer a permit program for point source discharges into surface waters. This program, entitled the National Pollutant Discharge and Elimination System (NPDES), can be accomplished by a federal permit or by certifying that a state permit program meets EPA criteria. In North Carolina, the state has authority to administer the NPDES Permit Program because state regulations have been found to be consistent with federal standards. The NPDES Permit Program is administered by the North Carolina Division of Environmental Management (DEM), subject to EPA veto if federal water quality standards are not adequately enforced.

An NPDES permit is required for any proposed project work which would involve the construction, alteration, or extension and/or operation of any sewer system, treatment works, or disposal system which would result in a discharge to surface water. <sup>16</sup> For instance, if a coal exporting terminal uses a dust suppressant sprinkler system to control coal dust at the loading point, and the wastewater from this system is dumped into surface waters, an NPDES permit would be required. If a municipality were planning to extend the existing municipal water and sewer system in order to serve a new facility, the municipality would have to obtain an NPDES permit for such an extension. (Note: Sources within DNRCD feel it is highly unlikely for any municipal system to accept wastewater from coal exporting terminals. Wastewater would

<sup>&</sup>lt;sup>13</sup>Hollis, Charles, Permits Branch, U.S. Army Corps of Engineers, Wilmington, N.C., telephone interview, April 30, 1981.

 $<sup>^{14}</sup>$ G.S., §146-6(C). Appendix A.2 gives a description of the law and the standards and regulations promulgated pursuant to the law.

<sup>&</sup>lt;sup>15</sup>Schecter, Roger N., Chief of Permit Information and Assistance Section, Office of Regulatory Relations (DNRCD), personal interview, April 16, 1981.

 $<sup>^{16}</sup>$ G.S. §143-215.1. Appendix A.3 gives a description of the law and the standards and regulations promulgated pursuant to the law.

either have to be discharged into surface water or into some type of nondischarge system. Alla-Ohio is currently operating a nondischarge system at their Morehead City coal terminals.)<sup>17</sup> An NPDES permit would also be required if the facility had a pretreatment system which would discharge to a publicly owned treatment works.

In addition to the NPDES regulations, any person who engages in an activity that may result in a discharge to navigable waters, and which requires a federal permit, must obtain a 401 Water Quality Certification. This certification, based on Section 401 of the Federal Water Pollution Control Act of 1972, requires that such a discharge be in compliance with state water quality standards. Since the activity associated with construction of coal terminals and OCS support bases would require Corps of Engineers permits, a 401 Water Quality Certification would likely be required. The North Carolina Division of Environmental Management is the certifying agency.

A third set of federal regulations related to water quality is derived from Section 103 of the Marine Protection, Research, and Sanctuaries Act of 1972. 18 A so-called "103 Permit" must be obtained from the Army Corps of Engineers in order to transport dredged materials for the purpose of dumping them into the ocean. This permit has never been required in North Carolina since the State Dredge and Fill Act (G.S. §113-229), and regulations under that act, state that in-bay, open water, and deep water disposal should only be used as a last resort after all upland alternatives have been exhausted. 19 No ocean dumping of dredged materials has ever occurred in this state's coastal waters. 20

## 2.3.2.2 State Requirements

If a project proposes to use a disposal system in which its waste is not discharged to surface waters or to an existing sewage system, this will require a Permit for Waste Not Discharged to Surface Waters (or "nondischarge permit") instead of an NPDES permit.  $^{21}$  The permit program, administered by DEM, also requires a nondischarge permit for any project involving the construction, alteration, or extension and/or operation of any sewer system or treatment works which does not discharge to surface waters. Septic tank systems of over 3,000 gallons per day design capacity, except those receiving industrial process wastewater, are included in the program and require a state nondischarge permit. Septic tank systems under 3,000 gallons per day design capacity do not require a state permit must be approved by the

<sup>&</sup>lt;sup>17</sup>Wakild, Chuck, Regional Supervisor, Wilmington Regional Office, N.C. Department of Natural Resources and Community Development, telephone interview, April 23, 1981.

<sup>&</sup>lt;sup>18</sup>16 U.S.C. §1432.

<sup>&</sup>lt;sup>19</sup>15 NCAC 7J 0809.

<sup>&</sup>lt;sup>20</sup>Hollis, Charles, Permits Branch, U.S. Army Corps of Engineers, Wilmington, N.C., telephone interview, April 30, 1981.

 $<sup>^{21}\</sup>text{G.S.}$  §143-215.3. Appendix A.4 gives a description of the law and the standards and regulations promulgated pursuant to the law.

local health department.<sup>22</sup> Other systems, requiring a nondischarge permit are spray irrigation or land application disposal systems and closed systems or recycle disposal systems. If a coal exporting terminal proposes to use some type of holding pond for rain water runoff from coal piles and other wastewater, this system would necessitate a nondischarge permit.

## 2.3.3 Water Supply

### 2.3.3.1 State Requirements

An OCS support base or a coal exporting terminal would, of course, require a water supply system, and various state permits and supply system approvals might be necessary for this system, depending on the source of the water. If the facility is able to tap onto an existing public water supply system, without modifications to that system, then no permit or special approval would be required.

If access to a public water supply system is unavailable, a well would have to be constructed to provide water. A Well Construction Permit must be obtained from DEM if the well has a design capacity of 100,000 gallons per day or greater. Also, a Water Use Permit from DEM is required in "capacity use areas" if the facility is going to withdraw surface water or groundwater in excess of 100,000 gallons per day. Also, a Water Use Potential OCS or coal sites in the Wilmington area are presently in a capacity use area, but a portion of Carteret County (that portion north of U.S. 70) is a designated capacity use area and any facilities locating in this area are subject to the Water Use Permit requirements.

Finally, if the industry itself provides piped water for human consumption to at least 25 individuals per day for at least 60 days of the year, or has at least 15 service connections, the system would be considered a public water system. <sup>25</sup> If this is the case, the industry must submit its water supply system plans for approval by the Department of Human Resources (DHR). DHR must approve the proposed well site and may impose certain limitations on the use of the designated public water supply watershed. The water supply system must meet the criteria established by DHR regulations. <sup>26</sup>

<sup>&</sup>lt;sup>22</sup>G.S. §130-166.22.

 $<sup>^{23}</sup>$ G.S. §87-88. Appendix A.5 gives a description of the law and the standards and regulations promulgated pursuant to the law.

<sup>&</sup>lt;sup>24</sup>G.S. §143-215.15

<sup>&</sup>lt;sup>25</sup>G.S. §130-166.43. Appendix A.6 gives a description of the law and the standards and regulations promulgated pursuant to the law.

<sup>&</sup>lt;sup>26</sup>10 NCAC 10D .0700, .0800, .1100-1500.

## 2.3.4 Air Quality

### 2.3.4.1 Federal Requirements

The Federal Clean Air Act<sup>27</sup> sets National Ambient Air Quality Standards (NAAQS), which define two types of maximum acceptable levels of air pollution for a number of common pollutants. The primary standards are designed to protect the public health and are to be attained by 1982. The secondary standards are designed to protect values other than human health such as vegetation, materials, visibility, and weather and are supposed to be attained within a reasonable time.

If a new facility is locating in an area which meets primary and secondary NAAQS, it is subject to the program for Prevention of Significant Deterioration of air quality (PSD) and may be required to obtain a PSD Permit (see below). <sup>28</sup> If a new facility is locating in an area not yet obtaining ambient standards (nonattainment area), it is subject to more stringent permit requirements. <sup>29</sup> Presently, all of the coastal counties of North Carolina meet primary and secondary ambient air quality standards and, therefore, new facilities would be subject only to PSD requirements. <sup>30</sup>

The federal government has delegated the primary responsibility for achieving and maintaining ambient air quality standards to the states. This is achieved through the development of State Implementation Plans which must be approved by EPA. $^{31}$  North Carolina's State Implementation Plan has been approved by the EPA, although it is under continuous revision. 32 Under this plan, the Division of Environmental Management is authorized to administer the PSD Permit Program, although final permit approval presently rests with Under the PSD requirements, any new "major" source of pollution must obtain a PSD Permit prior to the beginning construction. According to EPA regulations, the following are "major" sources: (1) sources which emit more than 100 tons of pollutants per year and are among the list of sources designated in 40 CFR 52.21 (b)(1); or (2) any other source which emits more than 250 tons of pollutants per year. 33 The tonnage limits include not only pollutants from a stack or vent, but also all quantifiable pollutants regulated by the Clean Air Act. Thus, coal dust would be included in the estimate of the total emissions. 34

<sup>&</sup>lt;sup>27</sup>42 U.S.C. §7401.

<sup>&</sup>lt;sup>28</sup>40 C.F.R. §52.

<sup>&</sup>lt;sup>29</sup>40 C.F.R. §51.

Shelf Oil and Gas Lease Sale No. 56, Bureau of Land Management, 1981.

<sup>&</sup>lt;sup>31</sup>42 U.S.C. §7473 (a).

<sup>&</sup>lt;sup>32</sup>40 C.F.R. §52.1772.

<sup>&</sup>lt;sup>33</sup>40 C.F.R. §52.21(b)(1).

<sup>&</sup>lt;sup>34</sup>Sewell, Michael, Air and Water Quality Section. Division of Environmental Management, telephone interview, April 27, 1981.

Of the two types of energy facilities being considered here, only OCS support bases could possibly be subject to the more stringent 100 tons/year major source classification. A new facility will require a PSD Permit if it will have petroleum storage units with a capacity of 300,000 barrels or more and if it emits over 100 tons of pollutant per year. To Given the fact that the estimated total fuel requirement at a temporary OCS service base is only 26,000 barrels/rig/year during drilling, it seems unlikely that the support bases will be subject to the 100 tons/year minimum. Probably the OCS support bases, and the coal exporting terminals as well, will fall into the second category and be required to obtain a PSD Permit only if their estimated emissions exceed 250 tons per year.

If a PSD Permit is required, the applicant must identify the air pollution controls that will be used and demonstrate that these controls represent the "best available control technology." Moreover, a PSD Permit will not be issued if the pollution emissions from the proposed source would cause significant deterioration of air quality in the areas. 36

Two other types of federal standards supplement the State Implementation Plans, and new projects may require review under these programs. the New Source Performance Standards (NSPS)<sup>37</sup> and the National Emission Standards for Hazardous Air Pollutants (NESHAPS). 38 NSPS lists 28 source categories which are subject to the performance standards. Coal exporting terminals would not be subject to the requirements, since they are not one of the listed categories (although coal preparation plants are listed). OCS support bases could be subject to NSPS review if the base has a storage tank for petroleum liquids of over 40,000 gallon capacity.<sup>39</sup> Otherwise, no NSPS review is required. Facilities subject to these performance standards are required to use the best technological system of adequately demonstrated continuous emission reduction (e.g., for large storage tanks a vapor recovery system or equivalent hydrocarbon control must be employed), taking into consideration costs of nonair quality health and environmental impacts and energy requirements. Note that NSPS differs from the PSD program in that new facilities falling into an NSPS category are required to comply with the emission reduction standards regardless of the amount of estimated pollutant emissions projected.

Coal exporting terminals and OCS support bases will not be subject to NESHAPS requirements since only facilities emitting the following pollutants are affected: asbestos, beryllium, mercury, and vinyl chloride.  $^{40}$ 

<sup>&</sup>lt;sup>35</sup>40 C.F.R. §52.21(b)(1).

<sup>&</sup>lt;sup>36</sup>For agency review standards to determine whether a source will affect air quality to an unacceptable degree, see Appendix A.7.

<sup>&</sup>lt;sup>37</sup>42 U.S.C. §7411.

<sup>&</sup>lt;sup>38</sup>42 U.S.C. §7412.

<sup>&</sup>lt;sup>39</sup>40 C.F.R. §60.110(a).

<sup>&</sup>lt;sup>40</sup>40 C.F.R. §61.

#### 2.3.4.2 State Requirements

In addition to federal requirements, a State Air Quality Permit must be issued by DEM for any of the following: (1) establishing or operating any air contaminant source; (2) building, erecting, using, or operating any equipment which may result in the emission of air contaminants or is likely to cause air pollution; or (3) construction or installation or any aircleaning device. <sup>41</sup> Clearly, coal exporting terminals, with their fugitive particulate emissions, would require an air quality permit. An OCS support base might also require an air quality permit, depending on what is stored at the site (storage of fuel will probably result in some hydrocarbon emissions).

New facilities required to obtain a State Air Quality Permit must submit detailed engineering plans and specifications to DEM. If a PSD Permit is required, it will be processed along with the State permit. Permit applications are evaluated based on the ambient air quality standards for the area and emission control standards set by DNRCD for various sources (e.g., for coal dust emissions, the facility will probably be required to have some type of control method(s) such as covering conveyor belts, vacuum pickup of dust, water sprinkler system, etc.). If a source is found to violate any of these standards, a permit will not be issued.

## 2.3.5 Facility Construction

### 2.3.5.1 Federal Requirements

Section 10 of the Rivers and Harbors Act of 1899 prohibits construction of any structure or other impediment to navigation in or over navigable waters (this includes coastal and inland waters, lakes, rivers and streams that are navigable, and adjacent tidal wetlands) without first obtaining a permit.  $^{42}$  The Section 10 permit requirements cover the construction of piers, wharves, pipelines, cables, conveyors, tunnels, dams, dikes, and bulkheads. Applications for a Section 10 permit must be submitted to the Army Corps of Engineers. The review process is basically the same as for dredge and fill permits, and Table 2 outlines the policies guiding the Corps on both dredge and fill and construction permit decisions. Unless the coal exporting facilities and support bases were to locate at an existing port facility, a Section 10 permit would be required to construct the pier or wharf.

In addition to requiring permits for construction affecting navigable waters, the Corps may also restrict the ability of an industry or individual to build a pier or wharf through the establishment of harbor lines beyond which no piers, wharves, bulkheads or other works may extend. $^{43}$  The harbor

 $<sup>^{41}</sup>$ G.S. §143-215.108. Appendix A.8 gives a description of the law and the standards and regulations promulgated pursuant to the law.

<sup>&</sup>lt;sup>42</sup>33 U.S.C. §401.

<sup>4333</sup> U.S.C. §404.

lines serve as a guide to the Corps in their permit decisions by indicating which navigable areas are to be protected.

Finally, under the same Rivers and Harbors Act of 1899, a permit must be issued by the Coast Guard for the construction of any bridge or causeway, as it applies to the locations and clearances of bridges and causeways in navigable waters. <sup>44</sup> Thus, the possible alteration of bridge clearance in order to facilitate the movement of larger vessels into certain coal terminal or OCS service base sites would require Coast Guard approval.

## 2.3.5.2 State Requirements

Any proposed land disturbing activity which will be undertaken on a tract of land of one or more acres and will involve uncovering more than one contiguous acre will require the submission of the Sedimentation Control Plan to the Division of the Land Resources (DLR). Land disturbing activity is defined as any use of the land that results in a change in the natural cover to topography and that may cause or contribute to sedimentation. The control plan must provide control for the calculated peak rates of runoff from a 10-year frequency storm. The plan should also include a description of the proposed development of the site, measures to meet mandatory and performance standards, and downstream protection of stream banks and channels. The DLR may require that the plan be modified, completely changed, or conditions added before the plan is approved.

It should be noted that local governments may supersede the state law by adopting their own erosion control ordinance, which must be at least as stringent as state law.  $^{46}$  Of the areas potentially impacted by coal export terminals or OCS support bases, only New Hanover County presently has an erosion control ordinance.

### 2.3.6 CAMA Regulations

## 2.3.6.1 CAMA Permits

The Coastal Zone Management Act of  $1972^{47}$  and subsequent amendments of 1976 established an assistance program to those coastal management programs which have been approved by the National Oceanic and Atmospheric Administration's (NOAA) Office of Coastal Zone Management (OCZM). The North Carolina Coastal Management Program, based largely on the 1974 North Carolina Coastal Area Management Act (CAMA) $^{48}$ , was approved by OCZM on September 1, 1978. The primary policy-making body for the program is the Coastal Resource Commission (CRC).

<sup>4433</sup> U.S.C. §401, 33 C.F.R §114.01.

<sup>&</sup>lt;sup>45</sup>G.S. §113A-54. Appendix A.9 gives a description of the law and the standards and regulations promulgated pursuant to the law.

<sup>&</sup>lt;sup>46</sup>G.S. §113A-54.

<sup>&</sup>lt;sup>47</sup>16 U.S.C. §1451.

 $<sup>^{48}</sup>$ G.S. §113A-100 (Text of statute is presented in Appendix A.10).

The Management Program and CAMA established a two-tiered management approach for coastal resource management. Any development activities occurring wholly or partially in designated areas of environmental concern (AECs) require a CAMA development permit. The definition of AECs is set out in detail in the State Guidelines for Areas of Environmental Concern, <sup>49</sup> but basically includes coastal wetlands, estuarine waters, public trust areas, estuarine shoreline, ocean hazard areas (including beaches, frontal dunes, inlet lands, and other areas subject to excessive erosion or flood damage), and some natural and cultural resource areas. Development activities outside these AECs are not required to obtain a CAMA development permit, but are still subject to other applicable federal, state, and local regulatory authorities, and these authorities are required to consider coastal policies in their permit or regulatory decisions. <sup>50</sup>

It is anticipated that most potential OCS support base or coal export terminal sites would be located, at least partially, in an AEC and therefore require a CAMA development permit. The authority for administering the program is shared by the Office of Coastal Management and local government units in the coastal areas. The OCM processes applications for CAMA "major development" permits while a local government (contingent on CRC approval of a local implementation and enforcement plan) may process applications for CAMA "minor development" permits. "Development" is defined as "any activity in a duly designated area of environmental concern" (except as provided in G.S. 113A-103(5)(b) and 15 NCAC 7K .0100--see Appendix A.11) "involving, requiring, or consisting of the construction or enlargement of a structure; excavation; dredging, filling; dumping; removal of clay, silt, sand, gravel or minerals; bulkheading, driving of pilings; clearing or alteration of land as an adjunct of construction; alteration or removal of sand dunes; alteration of the shore, bank, or bottom of the Atlantic Ocean or any sound, bay, river, creek, stream, lake or canal."51 "Major development" is defined as any development which: (a) requires permission, licensing, approval, certification or authorization in any form by Environmental Management Commission, Mining Control Board, or the Departments of Human Resources, Natural Resources and Community Development, or Administration; (b) occupies a land or water area in excess of 20 acres; (c) contemplates drilling for or excavating natural resources on land or underwater; or (d) occupies on a single parcel a structure or structures in excess of a ground area of 60,000 square feet. 52 "Minor development" is any development other than major.

It seems certain that under these definitions, most of the OCS support bases or coal export terminal sites would require a CAMA major development permit prior to initiating construction. These projects would require approval of other permits by the listed agencies and would also probably occupy a land or water area greater than 20 acres.

 $<sup>^{49}</sup>$ 15 NCAC 7H (See Appendix A.11 for excerpts from the guidelines giving descriptions of AECs).

<sup>&</sup>lt;sup>50</sup>Executive Order Number 15, Governor James B. Hunt, Jr.

<sup>&</sup>lt;sup>51</sup>15 NCAC 7J .0101(2).

<sup>&</sup>lt;sup>52</sup>15 NCAC 7J .0101(1).

The formal process of obtaining a CAMA major development permit begins with the submission of an application to OCM or to the Regional Field Office of DNRCD. Generally, prior to this time, the site visit described in Section 2.1 has been completed. The application is then circulated to several other state agencies for review and comment and public notice of the proposed development is published.  $^{53}$ 

Although the processing of the permit application is handled by OCM, the final decision to grant or deny a permit is made by the CRC. CAMA directs that the CRC consider the following criteria in making their permit decision: <sup>54</sup> (1) the State Guidelines for AECs promulgated under CAMA; <sup>55</sup> (2) local land use plans; (3) general policy guidelines for the coastal area promulgated by the CRC; <sup>56</sup> and (4) any other criteria listed in G.S. §113A-120.

The State Guidelines for AECs establish a list of specific categories of AEC, use standards for development in those particular categories, and statements of management objectives. Along with the General Policy Guidelines for the Coastal Areas these form the principal body of substantive regulations at the state level which the CRC uses in CAMA permit decision-making. Of particular interest are the Coastal Energy Policies which provide that local governments should not unreasonably restrict the development of necessary energy facilities, but should also develop siting measures to minimize impacts to local resources. The Moreover, the policies require that an impact assessment be completed prior to the construction of major energy facilities.

One of the key facets of the Coastal Area Management Act is the establishment of joint planning efforts between state and local governments in areas in the coastal zone. CAMA requires that a land use plan be developed for all the localities in the coastal zone area, and these plans must be approved by the CRC according to guidelines developed by the CRC. These land use plans must be consulted by the CRC in issuing CAMA development permits, and all permit decisions must be consistent with those land use plans. The land use plans may also serve as a guide to the applicant on local land use regulations and ordinances. The land use plan should contain a listing of all local land use regulations such as zoning ordinances, subdivision regulations, floodway ordinances, building codes, septic tank regulations, historic districts, nuisance regulations, dune protection, sedimentation codes, and environmental impact statement ordinances. (Note: Sources within OCM state

<sup>&</sup>lt;sup>53</sup>The procedure for handling major development permits is described in 15 NCAC 7J .0100-.1023.

 $<sup>^{54}\</sup>mbox{G.S.}$  §113A-120, 15 NCAC 7J .0402 (For text of this regulation, see Appendix A.12).

<sup>5515</sup> NCAC 7H.

<sup>&</sup>lt;sup>56</sup>15 NCAC 7M (For text of these policy guidelines, see Appendix A.13).

<sup>&</sup>lt;sup>57</sup>15 NCAC 7M .0403(c).

<sup>&</sup>lt;sup>58</sup>15 NCAC 7M .0403(b).

<sup>5915</sup> NCAC 7B.

that many local land use plans are deficient in these listings, and that applicants generally should consult local planning officials for complete information on local land use regulations.) In addition, the local land use plan should contain a map of the existing land use and a land classification map (based on the CRC land classification system). These both could be extremely useful to an industry in their siting decision. (Note: The land classification system is a planning tool for local governments and its citizens and is not considered a regulatory mechanism per se. Nonetheless, these classifications function indirectly as a regulatory mechanism, since the CRC will not normally grant a CAMA major permit application in an area not classified to allow for industrial development, because to do so would be inconsistent with the Land Use Plan.)

According to CAMA, all the local land use plans dealing with AECs and all local regulations and ordinances touching AECs must be consistent with the State Guidelines for AECs.  $^{62}$  If the local regulations affect land uses outside AECs and are inconsistent with the land use plans developed, the CRC will recommend modifications to the local governments.  $^{63}$  These recommendations are advisory in nature and not binding on the localities.

## 2.3.6.2 Consistency Review

It is important to emphasize that the CAMA development permit is required in addition to, and does not supersede, the other relevant state permits discussed in Section 2.3 However, the OCM does review all other state permit applications and federal permit applications in the coastal area for consistency with the North Carolina Coastal Management Program.

At the state level, Executive Order Number 15<sup>64</sup> requires that all other state agencies make their regulatory decisions consistent to the maximum extent possible with coastal policies. Therefore, when other state agencies are issuing permits, certifications; approvals, etc., which affect the coastal area they must consider the following: (1) the policies stated in the North Carolina Coastal Management Program<sup>65</sup> and (2) the local land use plan. This is true regardless of whether the development occurs in an AEC or outside an AEC. In addition, if the proposed activity falls within an AEC, the agency must also consider the State Guidelines for AECs. No regulatory permits for the coastal area may be issued, modified, renewed, or terminated without coordination and consultation with (but not subject to the veto of) the CRC.<sup>66</sup>

<sup>&</sup>lt;sup>60</sup>Benton, Steve, Head of Technical Services, Office of Coastal Management (DNRCD), telephone conversation, May 1, 1981.

<sup>6115</sup> NCAC 7B. .0203-.0204.

<sup>&</sup>lt;sup>62</sup>G.S. §113A-108.

<sup>&</sup>lt;sup>63</sup>G.S. §113A-111.

<sup>&</sup>lt;sup>64</sup>For text of Executive Order Number 15, See Appendix A.14.

<sup>65</sup> See State of North Carolina Coastal Management Program and Final Environmental Impact Statement, OCZM (NOAA), pp. 133-162.

<sup>&</sup>lt;sup>66</sup>G.S. §113A-125(b).

Section 307 of the Coastal Zone Management Act of 1972 gives a state with an approved Coastal Management Program, such as North Carolina's, the authority to certify whether proposed federal permits are consistent with their programs. This "consistency review" is performed by the Office of Coastal Management. When an application for a federal license or permit in the coastal area is made, the OCM is notified. The notification should include all the materials necessary for the OCM to make their consistency determination. Once the OCM has made the consistency determination, the application may be processed for issuance of the federal license or permit. The OCM may object to the permit or activity, in which case there are procedures for independent review. In those cases where a project must obtain a CAMA major development permit in addition to the federal license or permit, the issuance of the CAMA major development permit will serve as the OCM's consistency certification as well.

The federal consistency review is an important tool in ensuring that state coastal policies and concerns are considered before a federally permitted project is begun. Through this process the state may check or alter development which is considered to be inconsistent with the integrity of state coastal policies.

#### 2.4 OTHER REGULATORY CONTROLS

The following section will discuss other regulatory controls which may impact the development of coal export terminals and OCS support bases, but which do not take the form of a formal permit procedure or which may be triggered following construction only if certain materials are handled at the site.

## 2.4.1 Coast Guard Facilities Regulations

The Ports and Waterways Safety Act<sup>67</sup> gives the U.S. Coast Guard the primary responsibility for port and navigational safety. Under this authority, the Coast Guard may inspect any port facility located on navigable waters to assure compliance with minimum safety requirements. Generally, the Coast Guard will not conduct these inspections unless there is a possibility that dangerous cargoes, as defined in 46 C.F.R. §146-8 and 49 C.F.R. §172, are being stored and handled at the port facility. Contacts at the Coast Guard indicate that coal or coal slurry is not considered dangerous cargo and would not be subject to these particular regulations. On the other hand, based on familiarity with OCS support bases in the Gulf Coast region, the contacts at the Coast Guard felt that it is possible that some types of dangerous cargoes would be handled at these service bases. Generally.

<sup>6733</sup> U.S.C. §1221.

<sup>6833</sup> C.F.R §160.

<sup>&</sup>lt;sup>69</sup>Allen, Lt. Virgil R., Facilities Requirement Branch, U.S. Coast Guard, personal interview, April 6, 1981.

In order to handle such dangerous cargoes, the facility must be a designated waterfront facility complying with the conditions set forth in 33 C. F. R. §126.15. These conditions include specific requirements for regulating guards, smoking, welding and hot work, rubbish and waste materials, maintenance stores and supplies, electric wiring, heating equipment and open fires, fire extinguishing equipment, lighting, arrangement of warehousing, liquid cargo transfer systems and warning alarms. In addition, the facility must meet any state and local requirements restricting quantity of the dangerous cargo in question. If the preceding conditions are complied with, the Coast Guard issues a general permit for the handling of dangerous cargo which will continue until violations occur. To Finally, all dangerous cargo which is stored at the facility must be packaged, marked, and labeled in accordance with the regulations set forth in 49 C.F.R §170-179.

Two other sets of Coast Guard regulations could affect port facilities at Wilmington and Morehead City in the future, but do not presently impact these areas. First, the Coast Guard's Captain of the Port may set (or any person may request) a Waterfront Safety Zone around a facility, vessel, or entire port area for a certain period of time. The designation of such a Waterfront Safety Zone is based on safety or environmental reasons, and does not necessarily involve the handling of a dangerous cargo. If a Waterfront Safety Zone is established, access to the area designated may be restricted in any manner which the Captain of the Port or District Commander deems appropriate. There are no North Carolina ports which have been designated as Waterfront Safety Zones.

Analogous to the Waterfront Safety Zones, but tied to the protection of national defense, is the Security Zone. A Security Zone may limit access to a particular port area in order to safeguard vessels, harbors, ports, and waterfront facilities from "sabotage or other subversive acts." Presently no such Security Zone exists in any North Carolina port.

# 2.4.2 Storage and Disposal of Hazardous and Solid Wastes

The subject of hazardous and solid waste management is a complex one, involving a multitude of federal and state agency standards. Since the existing regulations only seem to affect proposed OCS support bases and coal exporting terminals to a limited degree, this area will only be briefly discussed. It should be noted that this program area is just emerging and could be subject to considerable changes at both the state and federal levels within the next few years.

The Resources Conservation and Recovery  ${\rm Act}^{73}$  (RCRA) of 1976 deals with the generation, transportation, and disposal of material designated as

<sup>&</sup>lt;sup>70</sup>33 C.F.R. §126.31.

<sup>&</sup>lt;sup>71</sup>33 C.F.R §165.

<sup>&</sup>lt;sup>72</sup>33 C.F.R. §127.

<sup>&</sup>lt;sup>73</sup>42 U.S.C. §6901.

hazardous waste. Coal and coal slurry are not among the list of hazardous substances, and therefore any waste generated at these sites would not be subject to RCRA regulations. Recently, revised EPA regulations specifically exclude "drilling" fluids, produced waters, and other wastes associated with the exploration, development, or production of crude oil, natural gas, or geothermal energy. Therefore, any wastes brought back to OCS support bases by supply boats from offshore rigs would not be required to adhere to RCRA regulations on the transportation and disposal of such wastes. Nonetheless, as a practical matter, the material must be disposed of at either a hazardous waste facility or a solid waste disposal site. Thus, it would be necessary to obtain an agreement from a permitted solid waste disposal site or hazardous waste facility. Presently, there are no hazardous waste facilities in North Carolina.

Any solid (nonhazardous) waste generated at the coal export terminals or OCS support bases, including both onshore and offshore waste, must be disposed of at either a permitted solid waste disposal site or by some disposal method on the site. If the material is disposed of at the site (e.g., a solid waste incinerator), the site would become a Solid Waste Disposal Site requiring a permit from DHR<sup>76</sup> and air quality permits. Otherwise, the industry must obtain the approval of the local landfill authority to receive the solid waste.

## 2.4.3 Noise Control Regulations

The Federal Noise Control Act of 1972<sup>77</sup> sets federal noise emission standards for rail and motor carriers, but does not currently regulate noise from the loading and unloading of vehicles. The EPA has established a regulation, effective January 15, 1984, which states that no rail carrier may conduct car coupling operations that exceed levels in excess of 92 dB(A). The EPA is currently considering Railroad Yard Property Line Standards, which would regulate rail yard noise as a whole, and not merely rail equipment. The noise regulations for rail equipment are considered in Section 3.2.

<sup>&</sup>lt;sup>74</sup>40 C.F.R. §117.

<sup>&</sup>lt;sup>75</sup>40 C.F.R. §261.4(b)(5).

 $<sup>^{76}</sup>$ G.S. §130-166.18. Note: If any waste is discharged into surface waters it will require an NPDES permit (see Section 2.3.2.1); or if any waste is discharged into some type of holding pond at the site, it will require a nondischarge permit (see Section 2.3.2.2).

<sup>&</sup>lt;sup>77</sup>42 U.S.C. §4901.

<sup>&</sup>lt;sup>78</sup>40 C.F.R §201.15

<sup>79</sup>Coastal Effects of Coal Transhipment in Michigan: An Evaluation Strategy, Great Lakes Basin Committee, for the Michigan Department of Natural Resources, 1980, p. I-22.

# 3.0 POLICIES AFFECTING TRANSPORTATION SUPPORT REQUIREMENTS FOR ENERGY FACILITIES

## 3.1 WATER TRANSPORTATION

The following section discusses the regulatory aspects of water transportation requirements associated with coal exporting terminals and OCS support bases. Regulations discussed in relation to OCS support bases are based on the assumption that only crew boats and supply vessels will be leaving from and going to these support bases.

# 3.1.1 Vessel Navigation and Safety

The Coast Guard is charged with regulating navigational safety primarily under the Ports and Waterways Safety Act. Based on this authority, the Coast Guard promulgates many detailed rules on lighting of vessels, signals, vessel maneuvering, aids to navigation, safety equipment, vessel speed, draft limitations, and anchoring. In addition to these specific regulations, the Coast Guard has the ability to control vessel traffic within a specified area through the establishment of a Vessel Traffic Service (VTS). 80 Generally speaking, ship movements within harbor areas are controlled on the basis of local agreement or agreement between shippers. But if a particular area is subject to heavy vessel traffic, the Coast Guard may establish a VTS to prevent collisions or groundings. This VTS may restrict movement, entry into the area, speed, route, and other vessel operations in order to promote navigational safety in a congested area. Presently there are no VTS areas on the coast of North Carolina.

# 3.1.2 Shipping of Hazardous Cargo

The Coast Guard regulates the manner in which certain cargoes may be shipped, depending primarily on whether those cargoes are shipped in bulk or in smaller packaged quantities. If a material classified as dangerous is shipped in bulk, <sup>81</sup> it is subject to the particular requirements of either 46 C.F.R. Subchapter N (for nonliquids) or 46 C.F.R. Subchapters D and O (for oil, liquids, and gases). Coal is not currently considered a dangerous cargo under these regulations; however, there has been a recent movement by the Intergovernmental Maritime Consultative Organization (IMCO) to have coal

<sup>&</sup>lt;sup>80</sup>33 C.F.R. §161.

<sup>81</sup>The term "bulk" applies only to cargoes transported aboard cargo vessels or barges without mark or count and which are to be directly loaded into the holds of such vessels or barges without containers or wrappers. 46 C.F.R. §148.01-1.

reclassified as a hazardous material, due to the possibility of methane gas explosions. There is a possibility that coal carrying vessels could be subject to these regulations in the future. 82 OCS supply and crew boats would not be subject to these regulations because onboard materials would not be carried in bulk quantities. (Note: If the fuel requirements for the bases are satisfied by bringing fuel in by water, these vessels might be subject to 46 C.F.R. Subchapters D and O.)

If the materials are to be carried aboard the vessel in a packaged or containerized fashion, then the hazardous materials regulations of 49 C.F.R Subchapter C apply. These regulations dictate that no material listed may be transported by any carrier unless that material is properly classed, described, packaged, marked, labeled, and in condition for shipment in accordance with these regulations. 83 Coal vessels carrying coal in bulk quantities are not affected by these regulations. 84 OCS supply vessels might come under these requirements, contingent on the types of materials being carried 85 (e.g., acetylene tanks for welding purposes would be subject to these regulations).

Finally, there are separate regulations for carrying dangerous articles as ship's stores and supplies. <sup>86</sup> Any articles which have been designated as dangerous and are used for the maintenance, operation, or navigation of the vessel (except fuel for its own machinery) must be handled, stored, and used in accordance with these regulations. Most dangerous noncargo items carried on board coal vessels or OCS supply boats would fall under these regulations. <sup>87</sup>

## 3.1.3 Water Pollution by Vessels

The expulsion of polluting substances by vessels is controlled in various ways, depending on the type of pollutant. Section 311 of the Federal Water Pollution Control Act, along with the Oil Pollution Act of 1961, 88 prohibits the discharge of oil or oily waste into the navigable waters of the United States if such a discharge causes a film or sheen upon or discoloration of the surface of the water, or causes a sludge or emulsion beneath the surface of the water. The Coast Guard is the enforcing agency in this regulatory area and conducts surveillance of boats for spotting possible discharge of

<sup>&</sup>lt;sup>82</sup>Allen, Lt. Virgil R., Facilities Requirement Branch, U.S. Coast Guard, personal interview, April 6, 1981.

<sup>8349</sup> C.F.R. §171.2.

<sup>&</sup>lt;sup>84</sup>There are some packaging requirements for carrying finely ground coal shipped in small quantities or packaged coal which has been heat dried and ground. 49 C.F.R. §173.165.

 $<sup>^{85}\</sup>mbox{The Hazardous Material Table listed in 49 C.F.R. §172.101 should be consulted.}$ 

<sup>8646</sup> C.F.R. §174.

<sup>&</sup>lt;sup>87</sup>The table in 40 C.F.R. §147.05-100 gives conditions for transportation of various classifications of dangerous stores and supplies.

<sup>88</sup>P.L. 87-167.

oil or oily substances. Coal-carrying vessels would only be indirectly affected by these regulations, such as the requirement that vessels must have a system for the retention and controlled disposal of "oily bilge slops." Fugitive coal dust which finds its way into the vessel's bilge may mix with oily substances and fall under these regulations.

The Coast Guard is also in charge of enforcing regulations against the dumping of hazardous wastes in coastal waters,  $^{90}$  although these regulations are not presently being enforced due to court challenges. Even if enforced, coal vessels and OCS supply boats would probably not be affected by these discharge regulations. Coal is not presently considered a hazardous waste as defined in 40 C.F.R. §261, and wastes associated with OCS activity are specifically exempted from hazardous waste classification.  $^{91}$ 

The discharge of substances not falling under the oil pollution or hazardous waste discharge guidelines is subject to Section 403 of the Federal Water Pollution Control Act, which provides that an NPDES permit must be issued for discharges into marine waters. This "ocean discharge permit" applies to a boundary area measured from the line of ordinary low water along that portion of the coast which is in direct contact with open sea and the line marking the seaward limit of inland waters. <sup>92</sup> The director of an approved State NPDES program (in North Carolina, the director of DEM) is required to evaluate whether a proposed discharge will cause unreasonable degradation of the marine environment. <sup>93</sup> If in the judgment of the director such degradation would occur, then no permit should be issued. The Coast Guard is the enforcing agency for assuring that permits and permit conditions are followed.

Finally, the Coast Guard has issued Marine Sanitation Regulations requiring that certain vessels have marine sanitation devices meeting EPA standards (under Section 312 of the Federal Water Pollution Control Act) in order to eliminate the discharge of untreated sewage from vessels into the waters of the U.S.<sup>94</sup> These regulations apply only to vessels subject to inspection under 46 C.F.R. Chapter I; therefore, they would probably affect only coal carrying vessels, not OCS supply vessels or crew boats.

## 3.2 RAIL TRANSPORTATION

Rail transportation will be of primary importance to the coal exporting terminals and may be of importance to OCS support bases in receiving certain

<sup>8933</sup> C.F.R. §155.320, §155.340, §155.350, §155.360.

<sup>&</sup>lt;sup>90</sup>33 C.F.R. §153.

<sup>&</sup>lt;sup>91</sup>40 C.F.R. §261.4(b)(5).

<sup>92</sup> Section 502(a) of the Federal Water Pollution Control Act.

<sup>&</sup>lt;sup>93</sup>The criteria for determining whether an ocean discharge will cause an "unreasonable degradation of the marine environment" are set forth in 40 C.F.R. §125.122(a). See Appendix A.15.

<sup>9433</sup> C.F.R. §159.

supplies. Construction of industrial spur lines or possibly main lines could be associated with several of the site locations, and the following section will consider the regulatory framework for that rail construction as well as noise control restrictions on rail equipment.

## 3.2.1 Rail Line Construction

The principal rail line construction accompanying OCS support bases or coal exporting terminals will generally be the construction of industrial spur lines off existing tracks. The industry must first contact the railroad company owning the main line to formulate construction agreements. The rail company constructs the initial part of the siding (e.g., Seaboard Coast Line generally builds the first 150 feet), and the industry builds the remaining portion. Generally, the portion of the spur constructed by the railroad company will not exceed its own right-of-way area so that no new right-of-way has to be acquired. The industry, of course, must acquire its own right-of-way for the portion of spur line not within its property. The industry, itself, has no power of eminent domain.

The construction of spur or industrial lines is not considered an interference with interstate commerce and therefore is exempt from the requirements of the Interstate Commerce Act. <sup>95</sup> The regulation of such trackage is left to the states. In North Carolina, the Utilities Commission may require a railroad company to construct an industry siding (not longer than 500 feet in length) if an agreement cannot be worked out through private negotiations. <sup>96</sup> The railroad company is vested with the power of eminent domain for the purposes of such construction. <sup>97</sup>

Before constructing its portion of the spur line, the industry may be required to have certain permits. If any dredge and fill work is involved, the industry must obtain a Section 10 and 404 permit from the Army Corps of Engineers. The Corps' standard procedure is to issue on permit for all dredge and fill activity connected with a project's development. Any dredge and fill activity associated with secondary activity, such as spur line construction, will be considered by the Corps in their permit decision and in issuing any conditions with the permit.

The CAMA development permit is administered in much the same manner. When an industry submits an application for a CAMA permit, all construction activities associated with the project must be included. Even if the spur line itself is not in an AEC, it would be considered as part of the whole development in the CAMA permit process if any portion of the project was

<sup>9549</sup> U.S.C. §11.

<sup>&</sup>lt;sup>96</sup>G.S. §62-232.

<sup>97</sup>G.S. §40-5.

<sup>&</sup>lt;sup>98</sup>Hollis, Charles, Permits Branch, U.S. Army Corps of Engineers, Wilmington, N.C., telephone interview, April 30, 1981.

located in an AEC.<sup>99</sup> On the other hand, if a rail spur was not constructed until well after the rest of the project was completed or was constructed to serve an already developed site, then the construction of the roadbed would not necessitate a CAMA development permit unless the line impacted an AEC.

In the event that a railroad company proposed to build a completely new line to serve an energy facility, this type of construction must be cleared by the Interstate Commerce Commission in the form of a Certificate of Public Convenience and Necessity. Other state or federal permits, such as CAMA permits or Corps' permits, may be necessary depending on the route of the new line. Design standards for new railroad line construction are set by the American Railroad Engineers Association.

## 3.2.2 Noise Control Regulations for Railroad Equipment

The Noise Control Act of 1972 authorizes the promulgation of noise level limits for railroads engaged in interstate commerce. The Environmental Protection Agency has issued such standards for both locomotives and rail cars.  $^{100}$  According to these regulations, locomotives manufactured prior to December 31, 1979, shall not emit sound levels in excess of 93 dB(A) while stationary, or 96 dB(A) while moving. Locomotives manufactured after December 31, 1979 shall not emit sound levels in excess of 87 dB(A) while stationary [70 dB(A) when idling], or 90 dB(A) while moving. No rail car or combination of rail cars shall, while in motion, produce sound levels in excess of 88 dB(A) at speeds up to 72 km/hr (45 mph). As stated previously, there are presently no regulations governing rail yard noise levels as a whole.

#### 3.3 HIGHWAY TRANSPORTATION

## 3.3.1 Construction of Service Roads

Many of the proposed sites will require that access roads be built to connect the site with a state system street or highway. Before constructing such a road, the industry would have to obtain a driveway permit through the local District Engineer for the North Carolina Department of Transportation.  $^{102}$  When built, the driveway entrance must conform to DOT driveway entrance regulations.  $^{103}$ 

The service road may also be subject to other state permits, depending on what land is traversed. As in the case of rail spur construction, service road construction is generally considered as part of the whole development for purposes of CAMA permits or Corps permit applications and separate

<sup>&</sup>lt;sup>99</sup>Holley, John, Office of Coastal Management (DNRCD), telephone interview, March 25, 1981.

<sup>&</sup>lt;sup>100</sup>40 C.F.R. §201.

 $<sup>^{101}</sup>$ dB(A) level is an A-weighted sound level, in decibels.

<sup>&</sup>lt;sup>102</sup>G.S. §136-93 (Note: Within municipalities having local ordinances affecting driveways, the more restrictive ordinances, state or local, will apply to driveways connecting into state system streets and highways.)

 $<sup>^{103}</sup>$ See Manual on Driveway Entrance Regulations, NCDOT, Promulgated pursuant to  $\overline{G.S.}$  §136-18(5).

permits need not be issued for this activity. The service road would have to be built according to state standards for such roads. 104

A private industry building a service road must acquire its own right-of-way. There is no power of eminent domain accorded to private companies who are building a service road.

## 3.3.2 Transportation of Hazardous Material

It is likely that some materials classified as hazardous will be transported by highway to and from coal export terminals and OCS support bases. The U.S. Department of Transportation has set out detailed regulations for the carrying of hazardous material by public highway. These regulations include general requirements for the transportation of all hazardous materials and specific requirements for different types of hazardous materials. The general requirements include the following: (1) compliance with the Federal Motor Carrier Safety Regulations promulgated by the Federal Highway Administration, 106 (2) the use of proper containers as prescribed in 49 C.F.R. §173, (3) the carrying of proper shipping papers as prescribed in 49 C.F.R. §177.817, and (4) the marking and placarding of the vehicle in accordance with 49 C.F.R. §172.

It is difficult to assess what specific requirements will be controlling since the types of hazardous materials which may be transported to and from the sites are not known at this time. It is known that the OCS support bases will require a quantity of fuel to be supplied. If this fuel is brought in by truck, these vehicles will be required to obey specific regulations established for the loading and unloading of flammable liquids. 107

## 3.4 SLURRY PIPELINE

The use of a coal slurry pipeline to transport coal has been mentioned in connection with several possible coal exporting terminal sites. Practicable functions of the slurry pipeline include alleviation of problems associated with rail traffic through Morehead City and direct loading of offshore vessels.

The development of slurry pipelines has historically been the subject of some controversy, and at this time there exists only one such pipeline in operation, the 273 mile Black Mesa Pipeline running from Northeastern Arizona to Southern Nevada. A central issue is whether federal eminent domain powers should be granted to slurry pipeline developers. The right of eminent domain is necessary in certain instances to acquire easements to cross public and private land if the existing landowner refuses to grant the right-of-way. Railroad companies have consistently refused to negotiate with slurry pipeline developers concerning easements to cross under their

<sup>&</sup>lt;sup>104</sup>Standards and Specifications for Streets and Subdivisions, NCDOT.

<sup>&</sup>lt;sup>105</sup>49 C.F.R. §177.

<sup>&</sup>lt;sup>106</sup>49 C.F.R. §390-397.

<sup>&</sup>lt;sup>107</sup>49 C.F.R. §177.837.

tracks, based on the railroad industry's perceived fear of competition in the coal hauling business. Several congressional bills have been introduced over the past few years to extend federal eminent domain power to coal pipelines but none, as yet, have been passed into law. Therefore, any eminent domain power for slurry pipelines must presently be derived from the state. The state of North Carolina has granted the right of eminent domain to slurry pipeline companies for pipelines originating in North Carolina which involve a public use or benefit. The pipelines being proposed here in connection with the coal exporting terminals would originate in North Carolina and thus developers would be vested with eminent domain power as long as such taking was deemed to involve a public use or benefit.

Aside from the question of eminent domain, there are many state and federal regulatory constraints which must be considered. The Materials Transportation Bureau and the Office of Pipeline Safety in the U.S. Department of Transportation set design and safety criteria for the construction of pipelines. 110 The construction of the pipeline would probably be subject to many of the same permit requirements imposed on the construction of the energy facility itself. An NPDES permit and 401 Water Quality Certification would be required if water used in the pipeline discharged into surface waters. An Easement to Fill from the North Carolina Department of Administration may be required for pipeline corridors in or on lands below navigable waters. An Army Corps of Engineers Section 10 permit would be required if the construction of the pipeline affected navigable waters (e.g., a submerged pipeline) and a Corps' Section 10 and 404 permit would be needed for any dredge and fill work associated with pipeline construction. The Coast Guard would have a review and comment role on any pipeline development which would affect navigation. Finally, a CAMA Major Development Permit would have to be obtained if the pipeline crossed an area of environmental concern, which it undoubtedly would. Once the slurry pipeline is constructed, it would be under the jurisdiction of the Utilities Commission as a public utility for purposes of rate regulation unless it is an interstate pipeline, in which case it falls under ICČ jurisdiction. 111

of Coal Slurry Pipelines, 13 Houston L. Rev. 528 (1976).

<sup>&</sup>lt;sup>109</sup>G.S. §40-2(1).

<sup>&</sup>lt;sup>110</sup>49 C.F.R. §192.1.

<sup>&</sup>lt;sup>111</sup>G.S. §62-190.

# DREDGE AND FILL IN ESTUARINE WATERS, TIDELANDS, ETC. (G.S. 113-229)112

Before engaging in excavating and/or filling works in estuarine waters, marshlands, tidelands, or state-owned lakes a permit must be obtained from both state and federal governments.

These permits are EXCLUSIVE to the coastal region of the state. They are administered by the Office of Coastal Management of the Department of Natural Resources and Community Development and the U.S. Army Corps of Engineering at the state and federal levels, respectively.

When planning to engage in such activities an application for a permit should be completed and submitted after consultation with personnel in the Office of Coastal Management. This application will also serve as an application for the federal permit. Applications at the state level normally require from 50 to 60 days for processing. After receiving a COMPLETED application, the state must act upon it within 90 days. If the state fails to act upon it within this time period, the permit is automatically approved. The Office of Coastal Management has the right to reset the 90 day period when it is found that the application is INCOMPLETE and that additional information is needed prior to initiating the processing procedures.

There is no limitation on federal action, although the federal permit normally relies heavily on the state application.

The Office of Coastal Management will use the following criteria to assess whether to recommend permit issuance, permit issuance with conditions, or permit denial. Elements of a project which are not addressed in the following criteria may also be considered in assessing a project and making recommendations.

- (1) Channels must be aligned or located so as to avoid highly productive shellfish beds or beds of submergent vegetation.
- (2) Projects should be designed so as not to create stagnant water bodies.
- (3) Marinas and boat basins must be developed on adjacent high ground so as not to disturb valuable wetland areas.
- (4) Excavation of canals in high ground should employ the use of a temporary earthen plug or other methods to minimize siltation of adjacent water bodies.

<sup>&</sup>lt;sup>112</sup>15 NCAC 7J .0800-.1024.

- (5) Project construction should be accomplished during periods of least significant biological activity.
- (6) The project should be located so as not to adversely impact upon a primary nursery area.
- (7) Channels and boat basins generally must not involve any excavation in highly productive salt cordgrass (Spartina alterniflora) marshes.
- (8) Materials must not be excavated from highly productive tidelands, bottoms, and marshlands for the sole purpose of obtaining fill.
- (9) Bulkhead alignment, for the purpose of shoreline stabilization, should approximate the mean high water (MHW) line or, in the absence of tidal influences, the normal water line (NWL).
- (10) Bulkheads should be constructed inland of marshland and marshgrass fringes.
- (11) Bulkhead's fill material should be obtained from an upland source. If the bulkhead is a part of the project involving excavation, the material so obtained may be used as backfill.
- (12) Drainage canals located through any marshland should not exceed 6 feet wide by 4 feet deep unless it can be shown by hydraulic engineering that larger dimensions are required.
- (13) Spoil derived from the construction or maintenance of drainage canals through regularly flooded marsh must be placed on high ground.
- (14) Spoil derived from the construction or maintenance of drainage canals through irregularly flooded marsh should be placed on high ground. Projects of this type will be considered on a case by case basis.
- (15) All excavated materials should be confined on high ground landward of regularly or irregularly flooded marshland. In addition, all dredge spoil must be confined to high ground behind adequate dikes or other retaining structures to prevent the materials from entering any marsh or adjacent waters.
- (16) In a hydraulic dredging operation the terminal end of the dredge pipeline should be positioned at or greater than 50 feet from any part of the dike and a maximum distance from spillways to allow adequate settlement of suspended solids.
- (17) Effluent from diked areas receiving disposal from hydraulic dredging operations should be contained by pipe, trough, or similar device to a point at or below the mean low water line to prevent gully erosion and resultant unnecessary siltation.

When the project design is in conflict with these criteria and there is not a feasible way that the project can be made to conform to the criteria, in making its decision the Department will take into account demonstrated public benefit which will result from the project as offsetting the adverse effects

of the project. In such cases the applicant must show that the project could not be undertaken on another site so as to achieve similar public benefits without conflicting with the criteria, that the project results in public benefit, and that the public benefits clearly outweigh the long-range adverse effects of the project.

# EASEMENTS TO FILL (G.S. 146-6(c), 143-341(4))<sup>113</sup>

- I. Easements to Fill are required in all incidences where the applicant proposes to raise lands above the normal high water mark of navigable waters by filling.
- II. The State Property Office located within the Department of Administration is the agency charged with administering this program. Easements to Fill by the Department of Administration are subject to approval by the Council of State.
- III. Applications must be made in writing to the State Property Office. An application for a Dredge and Fill permit will also be treated as an application for an easement if it is determined that one is needed. Application should be accompanied by a fee of \$100.00 and generally takes 30-45 days to process.
  - IV. Easements to Fill will be issued if the following conditions are met:
    - (1) the project will not impede navigation
    - (2) the project will not interfere with the use of navigable waters by the public
    - (3) the project will not injure any riparian owner
  - V. Standards for project review that may involve other easements over water are:
    - 1. The Department of Administration may grant to adjoining owners easements in land covered by navigable waters or by the waters of any lake owned by the state for such purposes and upon such conditions as it may deem proper. (Approval of the Governor and Council of State is necessary.)
    - 2. Such easements shall include only the front of the tract owned by the riparian owner to whom it is granted; it shall extend no further than "deep water" (to navigable channel) and shall in no respect obstruct or impair navigation.
    - 3. The State Property Office will consider if all aspects of the public interest will be served by the requested right-of-way, structure, or other privilege to be granted by the easement.

<sup>&</sup>lt;sup>113</sup>1 NCAC 6B .0501-.0512, .0601-.0610.

- 4. Piers or docks which provide riparian access to navigable waters are allowed and no easement is required. Such structures may be covered by a weatherproof shelter so long as the use of the sheltered area is in keeping with the provision of riparian access to water.
- 5. An easement is required for any structure built over navigable waters other than those providing simple riparian access. Those requiring an easement include, but are not limited to, multiple boat slips, finger piers and needlessly lengthy piers.
- 6. Such easements will not be granted for structures or facilities that can be located over land. Examples of structures not allowed include: utility buildings, dwellings, hotels, restaurants, businesses, apartments, etc.
- 7. Easements are not required for commercial fishing nets, fish offals, ramps, boathouses, duck blinds, and navigation aides.
- 8. The Department of Administration may grant easements for the purpose of cooperating with the federal government, utilizing the natural resources of the state, or otherwise serving the public interest.

# PERMIT TO DISCHARGE TO SURFACE WATERS AND/OR OPERATE WASTEWATER TREATMENT FACILITIES DISCHARGING INTO SURFACE WATERS (G.S. 143-215.1)<sup>114</sup>

- I. No person shall do any of the following things without first obtaining a permit:
  - (1) Make any outlets into the waters of the state.

(2) Construct or operate any sewer system, treatment works, or disposal system within the state.

(3) Alter, extend, or change the construction or method of operation of any sewer system, treatment works, or disposal system within the state.

- (4) Increase the quantity of waste discharged through any outlet or processed in any treatment works, or disposal system to an extent which would result in any violation of the effluent standards or limitations established for any point source or which would adversely affect the condition of the receiving waters to the extent of violating any of the standards applicable to such water, or to any extent beyond such minimum limits as the commission may prescribe, by way of general exemption from the provisions of this paragraph, by its official regulations.
- (5) Change the nature of the waste discharged through any disposal system in any way which would exceed the effluent standards or limitations established for any point source or which would adversely affect the condition of the receiving waters in relation to any of the standards applicable to such waters.
- (6) Cause or permit any waste, directly or indirectly, to be discharged to or in any manner intermixed with the waters of the state in violation of water quality standards applicable to the assigned classification or in violation of any effluent standards or limitations established for any point source, unless allowed as a condition of any permit, special order or other appropriate instrument issued or entered into by the commission.
- (7) Cause or permit any wastes for which pretreatment is required to be discharged directly or indirectly, from a pretreatment facility to any disposal system or to alter, extend or change the construction or method of operation or increase the quantity or change the nature of the waste discharged from or processed in such a facility.

<sup>11415</sup> NCAC 2H .0100-.0123.

(8) Enter into a contract for the construction and installation of any outlet, sewer system, treatment works, pretreatment facility or disposal system or for the alteration or extension of any such facilities.

Permits to carry out the above activities are referred to as NPDES permits. The discharge of oil into state waters, tidal flats and beaches is also prohibited under G.S. 143-215.83; however, permits for this activity fall under the scope of the NPDES permit program.

- II. The Division of Environmental Management located within the Department of NRCD is the agency charged with this responsibility.
- III. Industries discharging or planning to discharge waste to surface waters requiring pretreatment prior to entering other treatment works should acquire an application for a permit. Reply time for authorization is 90-120 days following receipt. Standards by which applications are reviewed are as follows:
  - (1) Effluent limits and guidelines for existing sources and standards of performance and pretreatment standard for new sources adopted by EPA are the applicable N.C. effluent limitations and guidelines for wastewater discharges to surface water.
  - (2) Effluent limits in Effluent Limited Segments--for municipal wastewaters, effluent limitations expressed in mg/l as monthly average and weekly maximum average.

	SECON	<b>BPCTCA</b>		
Effluent Characteristics	Monthly Avg	Weekly Avg. Max.	Avg. Max.	
BOD (5)	30 mg/1	45 mg/1	Reserved	
TSS	30 mg/1	45 mg/1	Reserved	
Fecal Coliform	200/100 m1	400/100 m1	Reserved	
рН	Within the range of 6.0 to 9.0			

For industrial waste discharges--effluent limits for these categories are set forth by EPA and have been adopted by the EMC.

(3) Issuance of a permit is determined on whether any applicable standards will be violated, thus contributing to pollution of state waters.

# WASTE NOT DISCHARGED TO SURFACE WATERS (G.S. 143-215.3)115

A permit must be secured by all persons proposing to construct, alter, or extend any sewer system, treatment works, or disposal system which does not discharge to surface waters of the state; or operating or proposing to operate any sewer system, treatment works, or disposal system which does not discharge to surface waters of the state. Septic tank systems of less than 3,000 gallon design capacity, except those involving industrial process wastewater, are the responsibility of the local health department.

The Division of Environmental Management (DNRCD) is the state agency to which all permit applications should be made.

Permits are issued in accordance with the following standards:

- a) No wastewater will be discharged into water classified as "SA" for the taking of shellfish for market purposes nor to waters in such close proximity as to adversely affect such waters regardless of treatment proposed. Wastes discharged into waters tributary to waters classified "SA" shall be treated in such a manner as to assure that no impairment of water quality in the "SA" segment will occur.
- b) No wastewaters will be discharged to waters classified "SB" unless these wastewaters are treated to the extent necessary to assure protection of assigned water quality standards.
- c) No discharge shall be allowed to any surface waters that experience excessive growth of microscopic or macroscopic vegetation or that, because of their relative size and lack of water exchange, are found by the Commission to be subject to such excessive growths.
- d) No discharge shall be allowed to the waters of the Atlantic Ocean except in compliance with regulations promulgated by the Environmental Management Commission pursuant to General Statutes.
- e) In all cases where connection to an existing area-wide sewerage system or where establishment of an area-wide sewerage system is feasible, such connection thereto or establishment thereof shall be required. If immediate establishment of such a sewerage system is not feasible, a phased approach to such a system should be begun.
- f) Septic tank-nitrification systems will not be approved in high density areas. High density areas are hereby defined as those areas producing more than 1,200 gallons of wastewater per acre per day or which contain more than three residential units per acre.

<sup>&</sup>lt;sup>115</sup>15 NCAC 2H .0200-.0217.

- g) Interim Treatment and Disposal Facilities In those cases where an approved area-wide collection and treatment system is not available and cannot be provided, and where discharge to the surface waters is prohibited in Sections 1, 2, 3, or 4, interim treatment and disposal facilities may be approved subject to their meeting the following requirements.
- Wastewaters shall receive tertiary treatment (biological treatment followed by acceptable solids removal) and adequate bactericidal treatment.
- 2) Wastewater treatment facilities (except septic tanks) shall be located at least 10 feet from adjacent property under separate ownership, developed or undeveloped, and at least 10 feet from on-property residential units if these units are to be sold, e.g., condominiums, residential subdivision houses.
- 3) Waste treatment facilities are to be equipped with effective noise and odor control devices and are to be enclosed by a solid or semisolid open-topped structure or other approved structure. An automatically activated standby power source must be provided. All essential operating units must be provided in duplicate.
- 4) Treated wastewaters may be disposed of in subsurface disposal facilities, which are to be located at least 500 feet from any impounded public surface water supply or public shallow (less than 50 feet deep) groundwater supply, and at least 100 feet from private shallow groundwater supply except when a study of the soil would indicate a lesser separation acceptable.
- 5) Site or subsurface disposal facility shall be located at least 100 feet from any surface water body, except that in the case of drainage ditches that are normally dry this distance may be reduced to 25 feet.
- 6) Subsurface disposal facilities are to be designed on the basis of site conditions and soil percolation rates. The loading rate shall not exceed one and one-half gallons per square foot or trench bottom, except upon a finding by this office, based upon data submitted by the applicant, that a higher loading rate is justified. Trenches may be up to three feet wide and parallel trenches must be separated at least eight feet center to center.
- 7) Subsurface disposal areas are to contain at least 1,000 square feet of open "green area" for each residential unit served, or 2,500 square feet per thousand gallons per day of waste flow. The term "green area" contained herein is defined as an area either in its natural state or which has been modified by planting vegetative cover or grasses or low growing shrubbery. Not more than 25 percent of the required area may be covered with non-traffic bearing paved surfaces such as tennis courts, walkways or patios. Subsurface disposal areas shall not be used as parking lots, driveways, or for other vehicular traffic uses.
- 8) Treated wastewater may be disposed of in spray irrigation systems which shall be located at least 200 feet from any adjoining property buffered by trees to prevent excessive drift. Such areas shall be surrounded by fencing with warning signs to discourage human use or trespass, and designed according to good engineering practices with the application rate not to exceed ½ inch per acre per day.

9) The appropriate local governing body(ies) in the area in which the proposed project is located shall be notified of the proposed action at least fifteen (15) days before a permit for the proposed action is issued.

## WELL CONSTRUCTION (G.S. 87-88)<sup>116</sup>

A permit is required for the construction of any well with a designed capacity of 100,000 gallons per day or greater; or any well added to an existing system of 100,000 gallons per day; or any well used for recharge injection or disposal purposes; or withdrawal of ground or surface water in a designated capacity use area; and for any well constructed in an area where the EMC finds, after public hearings, such permit to be reasonably necessary to protect groundwater resources and public health, safety and welfare. Wells constructed by an individual on his own or rented land do not require a permit if the well is for a single family dwelling and for domestic use only. Applicants planning to construct wells should contact the Groundwater Section of the Department of Environmental Management (DNRCD).

The Groundwater Section has developed a standard application form for all permit applications. Information to be included: location of property, purpose of well, total capacity, construction type, estimated depth, all other existing wells without a 1,000 ft. radius and well location. Also proposed construction specifications should be included on a diagram. Applications are usually processed in 7 days, but no longer than 15 days.

# Well Permit Application Standards

- 1. Generally, except when otherwise approved by the Department, or in areas as may be designated by the Department, the source of water for any well intended for domestic use shall be at least twenty (20) feet below the surface of the ground, and from a water-bearing zone or aquifer that is not polluted.
- 2. A water use permit must be obtained if the well will be located in a capacity use area; and generally the well must be located:
  - (a) At a site not generally subject to flooding.
  - (b) At a minimum horizontal distance of fifty (50) feet from any water-tight sewage and liquid-waste collection facility (such as cast iron pipe).
  - (c) At a minimum horizontal distance of one hundred (100) feet from any other sewage or liquid-waste collection and disposal facility and any other source of potential pollution or contamination.
  - (d) At a minimum horizontal distance of ten (10) feet from any property boundary.
  - (e) At a site that permits access for maintenance, repair, treatment, testing, and such other attention as may be necessary.
  - (f) At a site that is well drained.

<sup>11615</sup> NCAC 2C .0001-.0018.

# 3. Public Water-Supply Wells Must Be Located:

- (a) At a site approved by a delegated representative of the North Carolina Department of Human Resources.
- (b) Insofar as possible, on a lot having minimum dimensions of 200 feet by 200 feet and that is owned or controlled by the person supplying the water.
- (c) At a minimum horizontal distance of fifty (50) feet from any water-tight sewer constructed of cast-iron pipe with caulked or leaded joints.
- (d) At a minimum horizontal distance of one hundred (100) feet from any other sewer and any other source of potential pollution or contamination.
- (e) At a site that is well drained.
- 4. No source of potential pollution or contamination such as septic tanks and drain fields shall be located within one hundred (100) feet of a well without prior permission from the department or agency designated by the Department.

# PUBLIC WATER SUPPLY SYSTEM REQUIREMENTS (G.S. 130-166.43)117

Approval must be obtained from the Department of Human Resources before constructing and operating any public water system. A public water system is defined as any system for the provision to the public of piped water for human consumption if such a system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

The Sanitary Engineering Section of the Division of Health Services (Department of Human Resources) approves water supply systems. Plans and specifications should be submitted at least 30 days prior to the date upon which action by the Division is desired.

Requirements that each public water supply system must meet are as follows:

- 1. It must meet the standards and criteria promulgated for the design and construction of such system, including water works facilities, appurtenances and pipe size of distribution lines.
- 2. A disinfection method approved by the Health Services Commission must be employed.
- 3. It must be designed so that it will provide safe and reliable supply to all anticipated service areas, and will permit interconnection to a regional system.
- 4. Plans and specifications must be done by a licensed engineer and approved by HSC prior to construction.
- 5. Supply system plans must contain arrangements made for continued operation, maintenance and service.

Minimum design criteria for water supply wells are as follows:

- 1. Well construction shall conform to well construction regulations and standards of the Division of Environmental Management (DNRCD) and make provisions for the following features: upper terminal, sanitary seal, concrete slab or well house floor, and water discharge pipe.
- 2. Criteria for yield:
  - (a) Wells shall be tested for yield and drawdown. A report or log of at least a 24-hour drawdown test to determine yield shall be submitted to the Division of Health Services for each well.
  - (b) Wells shall be located so that the drawdown of any well will not interfere with the required yield of another well.

<sup>&</sup>lt;sup>117</sup>10 NCAC 10D .0700, .0800, .1100-.1500.

(c) The combined yield of all wells of a water system shall be sufficient to provide the average daily demand in not more than 12 hours pumping time.

(d) The capacity of the permanent pump to be installed in each well shall not exceed the yield of the well as determined by the

drawdown test.

(e) A public water system using well water as its source of supply and designated to serve 50 or more residences or connections shall provide at least two wells. In lieu of a second well another water supply source may be accepted.

Other Standards for Public Water Supply Systems are listed below:

# (1) Public Surface Water Supplies Requiring Disinfection

- (a) A surface supply may be used as a public water supply with disinfection if it complies with the provisions of this section.
- (b) Such water supply shall be derived from uninhabited wooded areas.
- (c) The entire watershed shall be either owned or controlled by the person supplying the water or be under the control of the federal or state government; however, no such new water supply shall be created except where the water system owner shall own in its entirety the watershed from which the water will be obtained.
- (d) The water after disinfection shall be of potable quality as determined by bacteriological and chemical tests performed by an approved laboratory. The presence of contaminants shall not exceed the limits set forth in Section .1600 of these rules.
- (e) The water source shall have an A-I classification as established by the Environmental Management Commission and shall meet the quality standards for that classification.

# (2) Removal of Dissolved Matter and Suspended Matter

Any surface water which is to receive treatment for removal of dissolved matter and/or suspended matter in order to be used as a public water supply shall be obtained from a source which meets the A-I or A-II stream classification standards established by the Environmental Management Commission and shall be properly protected from objectionable sources of pollution as determined by a sanitary survey of the watershed made by an authorized representative of the Department of Human Resources. The source supply shall be sufficient in capacity to satisfy the anticipated needs of the users for the period of design.

# (3) Public Well Water Supplied

Any site or sites for any water supply well to be used as a public water supply shall be investigated by an authorized representative of the Division of Health Services. Approval by the Division of Health Services is required in addition to any approval or permit

issued by any other state agency. The site shall meet the following requirements for approval:

- (a) The well shall be located on a lot so that the area within 100 feet of the well shall be owned or controlled by the person supplying the water. Variances in the well lot area may be permitted where emergency conditions exist as determined by a representative of the Division of Health Services.
- (b) The well shall be located at least 100 feet from any sewer or other potential sources of pollution unless the sewer is constructed of materials and joints that are equivalent to water main standards in which case the sewer shall be at least 50 feet from the well.
- (c) The site shall be graded or sloped so that surface water is diverted from the well. The site shall not be subject to flooding.

## (4) Surface Water Facilities

- (a) Unimpounded Stream. Both the minimum daily flow of record of the stream and the estimated minimum flow calculated from rainfall and runoff shall exceed the maximum daily draft for which the water treatment plant is designed with due consideration given to requirements for future expansion of the treatment plant.
- (b) Pre-Settling Reservoirs. Construction of a pre-settling or pretreatment reservoir shall be required where excessive bacterial concentrations or wide and rapid variations in turbidity and/or chemical qualities occur.
- (c) Impoundments. Raw water storage capacity shall be sufficient to reasonably satisfy the designed water supply demand during periods of drought.
- (d) Clearing of Land for Impoundment. The area in and around the proposed impoundment of Class I and Class II reservoirs shall be cleared as follows:
  - (1) The area from two feet above and five feet below the normal full level of the impoundment shall be cleared and grubbed of all vegetation and shall be kept cleared until the reservoir is filled, provided that the area two feet above the normal full level may be reduced if the clearing at that elevation would exceed a horizontal distance of 50 feet from the full level. Secondary growth should be removed periodically and in all cases prior to flooding. A margin of at least 50 feet around the area shall be provided.
  - (2) The entire area below the five foot water depth shall be cleared and shall be kept cleared of all growth of less than six inches in diameter until the reservoir is filled.

- Stumps greater than six inches in diameter may be cut off at ground level.
- (3) All brush, trees, and stumps shall be burned or removed from the watershed.
- (e) Intakes, Pumps, Treatment Units, and Equipment. Raw water intakes, pumps, treatment units and equipment shall be designed to provide water of potable quality meeting the water quality requirements stated in Section .1600 of these rules.

# AIR QUALITY REVIEW CRITERIA FOR NEW SOURCES 118

Ambient Air Quality Impact: EPA's principal concern is that the new source should not affect air quality to an unacceptable degree. Two limits are important (see Table A.7-1): PSD increments and NAAQS. The PSD increments define the total allowable air quality impact at any one point for all new sources combined. Generally, a source will not be allowed to "consume" all of the increment by itself. If other sources have already consumed part of the increment, the applicant should model the combined effect of its emissions and the emissions from other sources. In no case will EPA grant a permit to a source if it will cause a violation of the increment.

If the existing air quality is near the NAAQS limits, then EPA will analyze the effect to ensure that the new source does not cause a violation of the NAAQS. If a nonattainment area is nearby, the applicant must also show no contribution to the violations in that area. This can be done by showing that the emissions from the new source do not blow toward the nonattainment area under the wind conditions associated with the violations. Alternatively, the new source can "offset" its contribution to the violation by obtaining a reduction in emissions from another source.

<sup>118</sup> Environmental Regulations Handbook for Enhanced Oil Recovery, U.S. Department of Energy, pp. 2-9 - 2-11, (1980).

TABLE A.7-1. ALLOWABLE AIR QUALITY INCREMENTS

	Maximum New Source Increment μg/m <sup>3</sup>				
Land Area Type	\$O <sub>2</sub>			TSP	
-	3 Hour	24 Hour	Annual	24 Hour	Annual
Nonattainment (NA)	< 0 (25)	< 0 (5)	< 0 (1)	< 0 (5)	< 0 (1)
Prevention of Significant Deterioration (PSD)					
Class I	25	5	2	10	5
Class II	512	91	20	37	19
Class III	700	182	40	75	37
National Ambient Air Quality Standards (NAAQS)					
Controlling	1300-P	365-P	80-P	260-P	75-P

#### Notes:

NA: Values in parentheses are "significance levels." Ambient air quality impacts less than these values will be ignored.

## PSD:

Class I: Pristine areas.

Class II: All areas not redesignated to Class I or Class III. (All areas in coastal North Carolina are Class II, except for Swan Quarter National Wilderness Area (Class I).)

Class III: Certain areas may be redesignated Class III by the state governor in order to provide additional opportunity for industrial growth. No Class III redesignations have been made or proposed, and none are expected.

NAAQS: P designates primary standard NAAQS are ceilings on total concentrates, **not** increments about existing air quality.

# AIR POLLUTION ABATEMENT FACILITIES AND SOURCES (G.S. 143-215.108)119

A permit must be obtained to do any of the following:

(a) Establishing or operating any air contaminant source;

(b) Building, erecting, using or operating any equipment which may result in the emissions of air contaminants or which is likely to cause air pollution;

(c) Altering or changing the construction or method of operation of any equipment or process from which air contaminants are or may

be emitted; and

(d) Entering into a contract for the construction and installation of any air cleaning device to be constructed, installed or operated.

Industries planning to engage in the above activities must comply with the county, regional or state regulations. The state's primary agency for air quality control is the Division of Environmental Management within DNRCD. As provided in the general statutes, the Environmental Commission has allocated some county and regional agencies authority to conduct their own program. Applications should be made with the respective agencies when planning to operate in the affected counties. At present, there are no such local agencies in the coastal area. All operations not locating within the area under the local programs must file applications with the DEM.

Applications for such permits are on a standard form. Information which must be included is as follows: nature of operation, description of processes whose emissions are to be controlled, type and narrative description of control devices, contaminants emitted, disposition of collected pollutants, and detailed plans and specifications. Applications generally take 60 days to process and no longer than 90. Appeals can be made to the Environmental Management Commission.

Permits to emit air contaminants are based on standards set by NRCD. They are as follows:

# A. Ambient Air Quality Standards

1. <u>Sulfur oxides</u> - .03 ppm annual mean; .14 ppm maximum 24 hour concentration; .5 ppm maximum 3 hour concentration.

<sup>&</sup>lt;sup>119</sup>15 NCAC 2H .0600-.0608, 15 NCAC 2D .0800-.0804; 15 NCAC 2D.0531.

- 2. Suspended solids 60 micrograms/cubic meter annual mean; 150 micrograms/cubic meter maximum 24 hour concentration.
- 3. <u>Carbon monoxide</u> 9 ppm maximum 8 hour concentration; 35 ppm maximum 1 hour concentration.
- 4. Photochemical oxidants .12 ppm maximum 1 hour concentration.
- 5. Hydrocarbons .24 ppm maximum 3 hour concentration.
- 6. Nitrogen dioxide .05 ppm annual mean.
- 7. <u>Lead 1.5 micrograms/cubic meter maximum arithmetic mean over a calendar quarter.</u>

\*NOTE: All maximum concentrations listed above are not to be exceeded more than once per year.

- B. Emission Control Standards controls have been set for a variety of sources including:
  - 1. Particulates from fuel burning sources
  - 2. Particulates from wood burning indirect heat exchangers
  - 3. Particulates from refuse burning equipment
  - 4. Particulates from hot mix asphalt plants
  - 5. Particulates from chemical fertilizer manufacturing plants
  - 6. Particulates from pulp and paper mills
  - 7. Particulates from mica or feldspar processing plants
  - 8. Particulates from sand, gravel, crushed stone operations
  - 9. Particulates from lightweight aggregate processes
  - 10. Particulates from Portland cement plants
  - 11. Particulates from ferrous jobbing foundries
  - 12. Particulates from miscellaneous industrial processes
  - 13. Emissions from plants producing sulfuric acid
  - 14. Emissions from stationary sources
  - 15. Control of nitrogen dioxide emissions
  - 16. Control of open burning
  - 17. Control of visible emissions
  - 18. Control of asbestos, beryllium and mercury are based on the national emission standards for hazardous substances.

Permit applications will be evaluated according to standards listed above. If a source will be found to violate any of the above, a permit will not be issued.

# SEDIMENTATION EROSION CONTROL (G.S. 113A-54)120

Approval must be secured prior to engaging in any land disturbing activity whenever the proposed activity is to be undertaken on a tract comprising more than one acre, if more than one contiguous acre is to be uncovered. Exceptions to this include: (1) those done for the purpose of fighting fires; (2) stockpiling of raw or processed sand, stone, gravel in material processing plant and storage yards (provided sediment control measures have been utilized to protect against off-site damages); (3) activities undertaken on agricultural land for the production of plants and animals; (4) activities undertaken on forestland for the production of harvesting of timber and timber products; (5) activities regulated by the Mining Act of 1971.

The state agency responsible for monitoring sedimentation control is the Division of Land Resources (DNRCD). If no approved local or county sedimentation control plan is in effect this Division is the one to which applications should be sent.

There is no standard application form; however, the Division of Land Resources has developed guidelines which a plan should contain. Each plan will have a narrative section and a section with maps, drawings, etc., depicting erosion control methods, etc. The applicant should include a project description and a description of sedimentation control measures for restoring stability to the disturbed area. 14 to 21 days are required for a decision, and an appeal may be made to the EMC.

Standards are flexible, but the following minimum standards must be applied:

- (1) No land-disturbing activity shall be permitted in proximity to a lake or natural watercourse unless a buffer zone is provided along the edge of the watercourse of sufficient width to confine visible siltation within the twenty-five percent (25%) of the buffer zone nearer the land-disturbing activity in connection with the construction of facilities to be located on, over or under a lake or natural watercourse.
- (2) The angle for graded slopes and fills shall be no greater than the angle which can be retained by vegetative cover or other adequate erosion control devices or structures. In any event, slopes left exposed will, within 30 working days or completion of any phase of grading, be planted or otherwise provided with ground cover, devices, or structures sufficient to restrain erosion.

<sup>12015</sup> NCAC 4B .0001-.0023.

(3) Whenever land-disturbing activity is undertaken on a tract comprising more than one acre, if more than one contiguous acre is uncovered, a ground cover sufficient to restrain erosion must be planted or otherwise provided within 30 working days on that portion of the tract upon which further active construction is not being undertaken. This standard shall not apply to cleared land forming the basin of a reservoir later to be inundated.

#### APPENDIX A.10

# COASTAL AREA MANAGEMENT ACT (CAMA)

#### ARTICLE 7.

# Coastal Area Management.

Part 1. Organization and Goals.

§ 113A-100. Short title. — This Article shall be known as the Coastal Area Management Act of 1974. (1973, c. 1284, s. 1.)

Editor's Note. — Session Laws 1973, c. 1284, s. 3, provides: "This act shall become effective July 1, 1974, except that the provisions of this act relating to the selection of the initial Commission shall become effective upon ratification, and the entire act shall expire on June 30, 1981." The act was ratified April 12, 1974.

Session Laws 1975, c. 452, s. 5, amenda Session

Laws 1973, c. 1284, s. 3, so as to change the expiration date of the 1973 act from June 30, 1981, to June 30, 1983.

The basic thrust of this Article is directed toward protecting areas of environmental concern by requiring permits for development in those areas. Rankin v. Coleman, 894 F. Supp. 647 (E.D.N.C. 1975).

- § 113A-101. Cooperative State-local program. This Article establishes a cooperative program of coastal area management between local and State governments. Local government shall have the initiative for planning. State government shall establish areas of environmental concern. With regard to planning, State government shall act primarily in a supportive standard-setting and review capacity, except where local governments do not elect to exercise their initiative. Enforcement shall be a concurrent State-local responsibility. (1973. c. 1284, s. 1.)
- § 113A-102. Legislative findings and goals. (a) Findings. It is hereby determined and declared as a matter of legislative finding that among North Carolina's most valuable resources are its coastal lands and waters. The coastal area, and in particular the estuaries, are among the most hiologically productive

regions of this State and of the nation. Coastal and estuarine waters and marshlands provide almost ninety percent (90%) of the most productive sport fisheries on the east coast of the United States. North Carolina's coastal area has an extremely high recreational and esthetic value which should be preserved and enhanced.

In recent years the coastal area has been subjected to increasing pressures which are the result of the often-conflicting needs of a society expanding in industrial development, in population, and in the recreational aspirations of its citizens. Unless these pressures are controlled by coordinated management, the very features of the coast which make it economically, esthetically, and ecologically rich will be destroyed. The General Assembly therefore finds that an immediate and pressing need exists to establish a comprehensive plan for the protection, preservation, orderly development, and management of the coastal area of North Carolina.

In the implementation of the coastal area management plan, the public's opportunity to enjoy the physical, esthetic, cultural, and recreational qualities of the natural shorelines of the State shall be preserved to the greatest extent feasible; water resources shall be managed in order to preserve and enhance water quality and to provide optimum utilization of water resources; land resources shall be managed in order to guide growth and development and to minimize damage to the natural environment; and private property rights shall be preserved in accord with the Constitution of this State and of the United States.

(b) Goals. — The goals of the coastal area management system to be created

pursuant to this Article are as follows:

(1) To provide a management system capable of preserving and managing the natural ecological conditions of the estuarine system, the barrier dune system, and the beaches, so as to safeguard and perpetuate their natural productivity and their biological, economic and esthetic values;

(2) To insure that the development or preservation of the land and water resources of the coastal area proceeds in a manner consistent with the capability of the land and water for development, use, or preservation based on ecological considerations;

(3) To insure the orderly and balanced use and preservation of our coastal resources on behalf of the people of North Carolina and the nation;

(4) To establish policies, guidelines and standards for:

a. Protection, preservation, and conservation of natural resources including but not limited to water use, scenic vistas, and fish and wildlife; and management of transitional or intensely developed areas and areas especially suited to intensive use or development, as well as areas of significant natural value;

b. The economic development of the coastal area, including but not limited to construction, location and design of industries, port facilities, commercial establishments and other developments;

c. Recreation and tourist facilities and parklands;

d. Transportation and circulation patterns for the coastal area including major thoroughfares, transportation routes, navigation channels and harbors, and other public utilities and facilities;

e. Preservation and enhancement of the historic, cultural, and scientific

aspects of the coastal area;

 Protection of present common-law and statutory public rights in the lands and waters of the coastal area; § 113A-103 § 113A-103

> g. Any other purposes deemed necessary or appropriate to effectuate the policy of this Article. (1973, c. 1284, s. 1.)

8 113A-103. Definitions. — As used in this Article:
(1) "Advisory Council" means the Coastal Resources Advisory Council

created by G.S. 113A-105.

- (2) "Coastal area" means the counties that (in whole or in part) are adjacent to, adjoining, intersected by or bounded by the Atlantic Ocean (extending offshore to the limits of State jurisdiction, as may be identified by rule of the Commission for purposes of this Article, but in no event less than three geographical miles offshore) or any coastal sound. The Governor, in accordance with the standards set forth in this subdivision and in subdivision (3) of this section, shall designate the counties that constitute the "coastal area," as defined by this section, and his designation shall be final and conclusive. On or before May 1, 1974, the Governor shall file copies of a list of said coastal-area counties with the chairmen of the boards of commissioners of each county in the coastal area, with the mayors of each incorporated city within the coastal area (as so defined) having a population of 2,000 or more and of each incorporated city having a population of less than 2,000 whose corporate boundaries are contiguous with the Atlantic Ocean, and with the Secretary of State. The said coastal-area counties and cities shall thereafter transmit nominations to the Governor of members of the Coastal Resources Commission as provided in G.S. 113A-104(d).
- (3) "Coastal sound" means Albemarle, Bogue, Core, Croatan, Currituck, Pamlico and Roanoke Sounds. For purposes of this Article, the inland limits of a sound on a tributary river shall be defined as the limits of seawater encroachment on said tributary river under normal conditions. "Normal conditions" shall be understood to include regularly occurring conditions of low stream flow and high tide, but shall not include unusual conditions such as those associated with hurricane and other storm tides. Unless otherwise determined by the Commission, the limits of seawater encroachment shall be considered to be the confluence of a sound's tributary river with the river or creek entering it nearest to the farthest inland movement of oceanic salt water under normal conditions. For purposes of this Article, the aforementioned points of confluence with tributary rivers shall include

the following:

a. On the Chowan River, its confluence with the Meherrin River;

b. On the Roanoke River, its confluence with the northeast branch of the Cashie River;

c. On the Tar River, its confluence with Tranters Creek; d. On the Neuse River, its confluence with Swift Creek;

e. On the Trent River, its confluence with Ready Branch. Provided, however, that no county shall be considered to be within the coastal area which: (i) is adjacent to, adjoining or bounded by any of the above points of confluence and lies entirely west of said point of confluence; or (ii) is not bounded by the Atlantic Ocean and lies

entirely west of the westernmost of the above points of confluence.
(4) "Commission" means the Coastal Resources Commission created by

G.S. 113A-104.

(5) a. "Development" means any activity in a duly designated area of environmental concern (except as provided in paragraph b of this

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subdivision) involving, requiring, or consisting of the construction or enlargement of a structure; excavation; dredging; filling; dumping; removal of clay, silt, sand, gravel or minerals; bulkheading, driving of pilings; clearing or alteration of land as an adjunct of construction; alteration or removal of sand dunes; alteration of the shore, bank, or bottom of the Atlantic Ocean or any sound, bay, river, creek, stream, lake, or canal.

b. The following activities including the normal and incidental operations associated therewith shall not be deemed to be

development under this section:

1. Work by a highway or road agency for the maintenance of an existing road, if the work is carried out on land within the

boundaries of the existing right-of-way;

2. Work by any railroad company or by any utility and other persons engaged in the distribution and transmission of petroleum products, water, telephone or telegraph messages, or electricity for the purpose of inspecting, repairing, maintaining, or upgrading any existing substations, sewers, mains, pipes, cables, utility tunnels, lines, towers, poles, tracks, and the like on any of its existing railroad or utility property or rights-of-way, or the extension of any of the above distribution-related facilities to serve development approved pursuant to G.S. 113A-121 or 113A-122;

3. Work by any utility and other persons for the purpose of construction of facilities for the development, generation, and transmission of energy to the extent that such activities are regulated by other law or by present or future rules of the State Utilities Commission regulating the siting of such facilities (including environmental aspects of such siting), and work on facilities used directly in connection with the above

facilities:

4. The use of any land for the purpose of planting, growing, or harvesting plants, crops, trees, or other agricultural or forestry products, including normal private road construction, raising livestock or poultry, or for other agricultural purposes except where excavation or filling affecting estuarine waters (as defined in G.S. 113-229) or navigable waters is involved;

5. Emergency maintenance or repairs;

6. The construction of any accessory building customarily incident to an existing structure if the work does not involve filling, excavation, or the alteration of any sand dune or beach;

 Completion of any development, not otherwise in violation of law, for which a valid building or zoning permit was issued prior to ratification of this Article and which development was

initiated prior to the ratification of this Article;

8. Completion of installation of any utilities or roads or related facilities not otherwise in violation of law, within a subdivision that was duly approved and recorded prior to the ratification of this Article and which installation was initiated prior to the ratification of this Article;

9. Construction or installation of any development, not otherwise in violation of law, for which an application for a building or zoning permit was pending prior to the ratification of this

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> Article and for which a loan commitment (evidenced by a notarized document signed by both parties) had been made prior to the ratification of this Article; provided, said building

or zoning application is granted by July 1, 1974;

10. It is the intention of the General Assembly that if the provisions of any of the foregoing subparagraphs 1 to 10 of this paragraph are held invalid as a grant of an exclusive or separate emolument or privilege or as a denial of the equal protection of the laws, within the meaning of Article I. Secs. 19 and 32 of the North Carolina Constitution, the remainder of this Article shall be given effect without the invalid provision or provisions.

c. The Commission shall define by rule (and may revise from time to time) certain classes of minor maintenance and improvements which shall be exempted from the permit requirements of this Article, in addition to the exclusions set forth in paragraph b of this subdivision. In developing such rules the Commission shall consider, with regard to the class or classes of units to be

exempted:

1. The size of the improvement or scope of the maintenance work;

2. The location of the improvement or work in proximity to dunes, waters, marshlands, areas of high seismic activity, areas of unstable soils or geologic formations, and areas enumerated in G.S. 113A-113(b)(3); and

3. Whether or nor dredging or filling is involved in the maintenance or improvement.

(6) "Key facilities" include the site location and the location of major improvement and major access features of key facilities, and mean:

a. Public facilities, as determined by the Commission, on nonfederal lands which tend to induce development and urbanization of more than local impact, including but not limited to:

1. Any major airport designed to serve as a terminal for regularly scheduled air passenger service or one of State concern;

2. Major interchanges between the interstate highway system and frontage-access streets or highways; major interchanges between other limited-access highways and frontage-access streets or highways;

 Major frontage-access streets and highways, both of State concern; and

4. Major recreational lands and facilities;

b. Major facilities on nonfederal lands for the development, generation,

and transmission of energy.

- (7) "Lead regional organizations" mean the regional planning agencies created by and representative of the local governments of a multicounty region, and designated as lead regional organizations by the Governor.
- (8) "Local government" means the governing hody of any county or city which contains within its boundaries any lands or waters subject to this
- (9) "Person" means any individual, citizen, partnership, corporation, association, organization, business trust, estate, trust, public or municipal corporation, or agency of the State or local government unit, or any other legal entity however designated.

Article and for which a loan commitment (evidenced by a notarized document signed by both parties) had been made prior to the ratification of this Article; provided, said building

or zoning application is granted by July 1, 1974; 10. It is the intention of the General Assembly that if the provisions of any of the foregoing subparagraphs 1 to 10 of this paragraph are held invalid as a grant of an exclusive or separate emolument or privilege or as a denial of the equal protection of the laws, within the meaning of Article I. Secs. 19 and 32 of the North Carolina Constitution, the remainder of this Article shall be given effect without the invalid provision or provisions.

c. The Commission shall define by rule (and may revise from time to time) certain classes of minor maintenance and improvements which shall be exempted from the permit requirements of this Article, in addition to the exclusions set forth in paragraph b of this subdivision. In developing such rules the Commission shall consider, with regard to the class or classes of units to be

exempted:

1. The size of the improvement or scope of the maintenance work;

2. The location of the improvement or work in proximity to dunes. waters, marshlands, areas of high seismic activity, areas of unstable soils or geologic formations, and areas enumerated in G.S. 113A-113(b)(3); and

3. Whether or nor dredging or filling is involved in the

maintenance or improvement.

(6) "Key facilities" include the site location and the location of major improvement and major access features of key facilities, and mean:

a. Public facilities, as determined by the Commission, on nonfederal lands which tend to induce development and urbanization of more than local impact, including but not limited to:

1. Any major airport designed to serve as a terminal for regularly scheduled air passenger service or one of State concern:

2. Major interchanges between the interstate highway system and frontage-access streets or highways; major interchanges between other limited-access highways and frontage-access streets or highways;

3. Major frontage-access streets and highways, both of State

concern; and

4. Major recreational lands and facilities;

b. Major facilities on nonfederal lands for the development, generation,

and transmission of energy.

(7) "Lead regional organizations" mean the regional planning agencies created by and representative of the local governments of a multicounty region, and designated as lead regional organizations by the Governor.

(8) "Local government" means the governing body of any county or city which contains within its boundaries any lands or waters subject to this

(9) "Person" means any individual, citizen, partnership, corporation, association, organization, business trust, estate, trust, public or municipal corporation, or agency of the State or local government unit, or any other legal entity however designated.

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(10) "Rule" means any policy, regulation or requirement of general application adopted pursuant to this Article. (1973, c. 1284, s. 1.)

§ 113A-104. Coastal Resources Commission. — (a) The General Assembly hereby establishes within the Department of Natural and Economic Resources a commission to be designated the Coastal Resources Commission.

(b) Composition. — The Coastal Resources Commission shall consist of 15

members appointed by the Governor, as follows:

(1) One who shall at the time of appointment he actively connected with or have experience in commercial fishing.

(2) One who shall at the time of appointment be actively connected with or have experience in wildlife or sports fishing.

(3) One who shall at the time of appointment be actively connected with or have experience in murine ecology.

(4) One who shall at the time of appointment be actively connected with or have experience in coastal agriculture.

(5) One who shall at the time of appointment be actively connected with or have experience in coastal forestry.

(6) One who shall at the time of appointment be actively connected with or have experience in coastal land development.

- (7) One who shall at the time of appointment be actively connected with or have experience in marine-related business (other than fishing and wildlife).
- (8) One who shall at the time of appointment be actively connected with or have experience in engineering in the coastal area.

(9) One who shall at the time of appointment be actively associated with a State or national conservation organization.

(10) One who shall at the time of appointment be actively connected with or have experience in financing of coastal land development.

(11) Two who shall at the time of appointment be actively connected with or have experience in local government within the coastal area.

(12) Three at-large members.

(c) The Governor shall appoint in his sole discretion those members of the Commission whose qualifications are described in subdivisions (6) and (10), and one of the three members described in subdivision (12) of subsection (b) of this section. The remaining members of the Commission shall be appointed by the Governor after completion of the nominating procedures prescribed by

subsection (d) of this section.

(d) On or before May 1 in every even-numbered year the Governor shall designate and transmit to the board of commissioners in each county in the coastal area four nominating categories applicable to that county for that year. Said nominating categories shall be selected by the Governor from among the categories represented, respectively by subdivisions (1), (2), (3), (4), (5), (7), (8), (9), (11) — two persons, and (12) — two persons, of subsection (b) of this section (or so many of the above-listed paragraphs as may correspond to vacancies by expiration of term that are subject to being filled in that year). On or before June 1 in every even-numbered year the board of commissioners of each county in the coastal area shall nominate (and transmit to the Governor the names of) one qualified person in each of the four nominating categories that was designated by the Governor for that county for that year. In designating nominating categories from biennium to biennium, the Governor shall equitably rotate said categories among the several counties of the coastal area as in his judgment he deems best; and he shall assign, as near as may be, an even number of nominees

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to each nominating category and shall assign in his best judgment any excess above such even number of nominees. On or before June 1 in every even-numbered year the governing body of each incorporated city within the coastal area having a population of 2,000 or more, and of each incorporated city having a population of less than 2,000 whose corporate boundaries are contiguous with the Atlantic Ocean, shall nominate (and transmit to the Governor the name of) one person as a nominee to the Commission. The Governor shall appoint 12 persons from among said city and county nominees to the Commission. The several boards of county commissioners and city governing bodies shall transmit the names, addresses, and a brief summary of the qualifications of their nominees to the Governor on or before June 1 in each even-numbered year, beginning in 1974; provided, that the Governor, by registered or certified mail, shall notify the chairmen or the mayors of the said local governing boards by May 20 in each such even-numbered year of the duties of local governing boards under this sentence. If any board of commissioners or city governing body fails to transmit its list of nominations to the Governor by June 1, the Governor may add to the nominations a list of qualified nominees in lieu of those that were not transmitted by the board of commissioners or city governing body. Within the meaning of this section, the "governing body" is the mayor and council of a city as defined in G.S. 160A-66. The population of cities shall be determined according to the most recent annual estimates of population as certified to the Secretary of Revenue by the Secretary of Administration.

(e) All nominees of the several boards of county commissioners and city governing bodies must reside within the coastal area, but need not reside in the county from which they were nominated. No more than one of those members appointed by the Governor from among said nominees may reside in a particular county. No more than two members of the entire Commission, at any time, may reside in a particular county. No more than two members of the entire

Commission, at any time, may reside outside the coastal area.

(f) Membership on the Coastal Resources Commission is hereby declared to be an office that may be held concurrently with other elective or appointive offices in addition to the maximum number of offices permitted to be held by

one person under G.S. 128-1.1.

(g) The members shall serve staggered terms of office of four years. At the expiration of each member's term, the Governor shall reappoint or replace the member with a new member of like qualification (as specified in subsection (b) of this section), in the manner provided by subsections (c) and (d) of this section. The initial term shall be determined by the Governor in accordance with customary practice but eight of the initial members shall be appointed for two

years and seven for four years.

(h) In the event of a vacancy arising otherwise than by expiration of term, the Governor shall appoint a successor of like qualification (as specified in subsection (b) of this section) who shall then serve the remainder of his predecessor's term. When any such vacancy arises, the Governor shall immediately notify the board of commissioners of each county in the coastal area and the governing body of each incorporated city within the coastal area having a population of 2,000 or more and of each incorporated city having a population of less than 2,000 whose corporate boundaries are contiguous with the Atlantic Ocean. Within 30 days after receipt of such notification each such county board and city governing body shall nominate and transmit to the Governor the name and address of one person who is qualified in the category represented by the position to be filled, together with a brief summary of the qualifications of the

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nominee. The Governor shall make the appointment from among said city and county nominees. If any county board or city governing body fails to make a timely transmittal of its nominee, the Governor may add to the nominations a

qualified person in lieu of said nominee.

(i) The chairman shall be designated by the Governor from among the members of the Commission to serve as chairman at the pleasure of the Governor. The vice-chairman shall be elected by and from the members of the Commission and shall serve for a term of two years or until the expiration of his regularly appointed term.

(j) Compensation. — The members of the Commission shall receive per diem and necessary travel and subsistence expenses in accordance with the provisions

of G.S. 138-5. (1973, c. 1284, s. 1.)

Cross Reference. — As to the effective date—selection of the initial Commission, see note to of the provisions of this section relating to the—\$ 113A-100.

§ 113A-105. Constal Resources Advisory Council. — (a) Creation. — There is hereby created and established a council to be known as the Coastal Resources Advisory Council.

(b) The Coastal Resources Advisory Council shall consist of not more than 47

members appointed or designated as follows:

(1) Three individuals designated by the Secretary of Natural and Economic Resources from among the employees of his Department;

(2) The Secretary of the Department of Administration or his designee;

- (3) The Secretary of the Department of Transportation and Highway Safety or his designee, and one additional member selected by him from his Department;
- (4) The Secretary of the Department of Human Resources or his designee;

(5) The Commissioner of Agriculture or his designee;

(6) The Secretary of the Department of Cultural Resources or his designee;

- (7) One member from each of the four multi-county planning districts of the coastal area to be appointed by the lead regional agency of each district;
- (8) One representative from each of the counties in the coastal area to be designated by the respective boards of county commissioners;
- (9) No more than eight additional members representative of cities in the coastal area and to be designated by the Commission;
- (10) Three members selected by the Commission who are marine scientists or technologists;
- (11) One member who is a local health director selected by the Commission upon the recommendation of the Secretary of Human Resources.
- (c) Functions and Duties. The Advisory Council shall assist the Secretaries of Administration and of Natural and Economic Resources in an advisory capacity:

(1) On matters which may be submitted to it by either of them or by the Commission, including technical questions relating to the development

of rules and regulations, and

(2) On such other matters arising under this Article as the Council considers

appropriate.

(d) Multiple Offices. — Membership on the Coastal Resources Advisory Council is hereby declared to be an office that may be held concurrently with other elective or appointive offices (except the office of Commission member)

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in addition to the maximum number of offices permitted to be held by one person under G.S. 128-1.1.

(e) Chairman and Vice-Chairman. — A chairman and vice-chairman shall be

elected annually by the Council.

(f) Compensation. — The members of the Advisory Council who are not State employees shall receive per diem and necessary travel and subsistence expenses in accordance with the provisions of G.S. 138-5. (1973, c. 1284, s. 1.)

### Part 2. Planning Processes.

- § 113A-106. Scope of planning processes. Planning processes covered by this Article include the development and adoption of State guidelines for the coastal area and the development and adoption of a land-use plan for each county within the coastal area, which plans shall serve as criteria for the issuance or denial of development permits under Part 4. (1973, c. 1284, s. 1.)
- § 113A-107. State guidelines for the coastal area. (a) State guidelines for the coastal area shall consist of statements of objectives, policies, and standards to be followed in public and private use of land and water areas within the coastal area. Such guidelines shall be consistent with the goals of the coastal area management system as set forth in G.S. 113A-102. They shall give particular attention to the nature of development which shall be appropriate within the various types of areas of environmental concern that may be designated by the Commission under Part 3. Such guidelines shall be adopted, and may be amended from time to time, in accordance with the procedures set forth in this section.
- (b) The Commission shall be responsible for the preparation, adoption, and amendment of the State guidelines. In exercising this function it shall be furnished such staff assistance as it requires by the Secretary of Natural and Economic Resources and the Secretary of the Department of Administration, together with such incidental assistance as may be requested of any other State

department or agency.

- (c) Within 90 days after July 1, 1974, the Commission shall submit proposed State guidelines to all cities and counties and lead regional organizations within the coastal area for their comments and recommendations. In addition, it shall submit such guidelines to all State, private, federal, regional, and local agencies which it deems to have special expertise with respect to any environmental, social, economic, esthetic, cultural, or historical aspect of development in the coastal area. It shall make copies of the proposed guidelines available to the public through the Department of Administration.
- (d) Cities, counties, and lead regional organizations and such other agencies or individuals as desire to do so shall have 60 days from receipt of such proposed guidelines within which to submit to the Commission their written comments

and recommendations concerning the proposed guidelines.

(e) The Commission shall review and consider all such written comments and recommendations. Within 210 days after the effective date of this Article, the Commission shall by rule adopt State guidelines for the coastal area. Certified copies of such guidelines shall be filed with the Attorney General and the principal clerks of the Senate and House, and the guidelines shall be mailed to each city, county, and lead regional organization in the coastal area and to such other agencies or individuals as the Commission deems appropriate. Copies shall be made available to the public through the Department of Administration.

(f) The Commission may from to time amend the State guidelines as it deems necessary. In addition, it shall review such guidelines each five years after July 1, 1974, in accordance with the procedures for adoption of the original guidelines, to determine whether further amendments are desirable. Any proposed amendments shall be submitted to all cities, counties, members of the General Assembly and lead regional organizations in the coastal area, and may be distributed to such other agencies and individuals as the Commission deems appropriate. All comments and recommendations of such governments, agencies, and individuals shall be submitted to the Commission in writing within 30 days of receipt of the proposed amendments. The Commission shall review and consider these written comments and thereupon may by rule reject or adopt the proposed amendments or modify and adopt the amendments. Certified copies of all amendments shall be filed with the Attorney General and the principal clerks of the Senate and House. Amendments shall thereupon be mailed to each city, county, members of the General Assembly and lead regional organization in the coastal area and to such other agencies and individuals as the Commission deems appropriate. Copies shall be made available to the public through the Department of Administration. (1973, c. 1284, s. 1; 1975, 2nd Sess., c. 983, ss. 75, 76.)

Editor's Note. — The 1975, 2nd Sess., amendment substituted "Attorney General" for "Secretary of State" in the third sentence of subsection (e) and in the sixth sentence of subsection (f).

The 1975, 2nd Sess., amendment directed that the change in subsection (f) be made in the

eighth line of the subsection. The words "Secretary of State" appear only in the thirteenth line of subsection (f) as set out in the 1975 Replacement Volume. Notwithstanding this discrepancy, the amendment has been given effect according to its obvious intent.

§ 113A-108. Effect of State guidelines. — All local land-use plans adopted pursuant to this Article within the coastal area shall be consistent with the State guidelines. No permit shall be issued under Part 4 of this Article which is inconsistent with the State guidelines. Any State land policies governing the acquisition, use and disposition of land by State departments and agencies shall take account of and be consistent with the State guidelines adopted under this Article, insofar as lands within the coastal area are concerned. Any State land classification system which shall be promulgated shall take account of and be consistent with the State guidelines adopted under this Article, insofar as it applies to lands within the coastal area. (1973, c. 1284, s. 1.)

§ 113A-109. County letter of intent; timetable for preparation of land-use plan. — Within 120 days after July 1, 1974, each county within the coastal area shall submit to the Commission a written statement of its intent to develop a land-use plan under this Article or its intent not to develop such a plan. If any county states its intent not to develop a land-use plan or fails to submit a statement of intent within the required period, the Commission shall prepare and adopt a land-use plan for that county. If a county states its intent to develop a land-use plan, it shall complete the preparation and adoption of such plan within 480 days after adoption of the State guidelines. In the event of failure by any county to complete its required plan within this time, the Commission shall promptly prepare and adopt such a plan.

In any case where the Commission has adopted a land-use plan for a county that county may prepare its own land-use plan in accordance with the procedures of this Article, and upon approval of such plan by the Commission it shall

supersede the Commission's plan on a date specified by the Commission. (1973, c. 1284, s. 1; 1975, c. 452, s. 1.)

Editor's Note. — The 1975 amendment substituted "480 days" for "300 days" in the third sentence of the first paragraph.

- 8 113A-110. Land-use plans. (a) A land-use plan for a county shall, for the purpose of this Article, consist of statements of objectives, policies, and standards to be followed in public and private use of land within the county, which shall be supplemented by maps showing the appropriate location of particular types of land or water use and their relationships to each other and to public facilities and by specific criteria for particular types of land or water use in particular areas. The plan shall give special attention to the protection and appropriate development of areas of environmental concern designated under Part 3. The plan shall be consistent with the goals of the coastal area management system as set forth in G.S. 113A-102 and with the State guidelines adopted by the Commission under G.S. 113A-107. The plan shall be adopted, and may be amended from time to time, in accordance with the procedures set forth in this section.
- (b) The body charged with preparation and adoption of a county's land-use plan (whether the county government or the Commission) may delegate some or all of its responsibilities to the lead regional organization for the region of which the county is a part. Any such delegation shall become effective upon the acceptance thereof by the lead regional organization. Any county proposing a delegation to the lead regional organization shall give written notice thereof to the Commission at least two weeks prior to the date on which such action is to be taken. Any city or county within the coastal area may also seek the assistance or advice of its lead regional organization in carrying out any planning activity under this Article.
- (c) The body charged with preparation and adoption of a county's land-use plan (whether the county or the Commission or a unit delegated such responsibility) may either (i) delegate to a city within the county responsibility for preparing those portions of the land-use plan which affect land within the city's zoning jurisdiction or (ii) receive recommendations from the city concerning those portions of the land-use plan which affect land within the city's zoning jurisdiction, prior to finally adopting the plan or any amendments thereto or (iii) delegate responsibility to some cities and receive recommendations from other cities in the county. The body shall give written notice to the Commission of its election among these alternatives. On written application from a city to the Commission, the Commission shall require the body to delegate plan-making authority to that city for land within the city's zoning jurisdiction if the Commission finds that the city is currently enforcing its zoning ordinance, its subdivision regulations, and the State Building Code within such jurisdiction.

(d) The body charged with adoption of a land-use plan may either adopt it as a whole by a single resolution or adopt it in parts by successive resolutions; said parts may either correspond with major geographical sections or divisions of the county or with functional subdivisions of the subject matters of the plan. Amendments and extensions to the plan may be adopted in the same manner.

(e) Prior to adoption or subsequent amendment of any land-use plan, the body charged with its preparation and adoption (whether the county or the Commission or a unit delegated such responsibility) shall hold a public hearing at which public and private parties shall have the opportunity to present

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comments and recommendations. Notice of the hearing shall be given not less than 30 days before the date of the hearing and shall state the date, time, and place of the hearing; the subject of the hearing; the action which is proposed; and that copies of the proposed plan or amendment are available for public inspection at a designated office in the county courthouse during designated hours. Any such notice shall be published at least once in a newspaper of general circulation in the county.

- (f) No land-use plan shall become finally effective until it has been approved by the Commission. The county or other unit adopting the plan shall transmit it, when adopted, to the Commission for review. The Commission shall afford interested persons an opportunity to present objections and comments regarding the plan, and shall review and consider each county land-use plan in light of such objections and comments, the State guidelines, the requirements of this Article, and any generally applicable standards of review adopted by rule of the Commission. Within 45 days after receipt of a county land-use plan the Commission shall either approve the plan or notify the county of the specific changes which must be made in order for it to be approved. Following such changes, the plan may be resubmitted in the same manner as the original plan.
- (g) Copies of each county land-use plan which has been approved, and as it may have been amended from time to time, shall be maintained in a form available for public inspection by (i) the county, (ii) the Commission, and (iii) the lead regional organization of the region which includes the county, (1973, c. 1284, s. 1)
- § 113A-111. Effect of land-use plan. No permit shall be issued under Part 4 of this Article for development which is inconsistent with the approved land-use plan for the county in which it is proposed. No local ordinance or other local regulation shall be adopted which, within an area of environmental concern, is inconsistent with the land-use plan of the county or city in which it is effective; any existing local ordinances and regulations within areas of environmental concern shall be reviewed in light of the applicable local land-use plan and modified as may be necessary to make them consistent therewith. All local ordinances and other local regulations affecting a county within the coastal area, but not affecting an area of environmental concern, shall be reviewed by the Commission for consistency with the applicable county and city land-use plans and, if the Commission finds any such ordinance or regulation to be inconsistent with the applicable land-use plan, it shall transmit recommendations for modification to the adopting local government. (1973, c. 1284, s. 1.)
- \$ 113A-112. Planning grants. The Secretary of Natural and Economic Resources is authorized to make annual grants to local governmental units for the purpose of assisting in the development of local plans and management programs under this Article. The Secretary shall develop and administer generally applicable criteria under which local governments may qualify for such assistance. (1973, c. 1284, s. 1.)

### Part 3. Areas of Environmental Concerni

- § 113A-113. Areas of environmental concern; in general. (a) The Coastal Resources Commission shall by rule designate geographic areas of the coastal area as areas of environmental concern and specify the boundaries thereof, in the manner provided in this Part.
- (b) The Commission may designate as areas of environmental concern any one or more of the following, singly or in combination:
  - (1) Coastal wetlands as defined in G.S. 113-230(a);

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(2) Estuarine waters as defined in G.S. 113-229(n)(2), that is, all the water of the Atlantic Ocean within the boundary of North Carolina and all the waters of the bays, sounds, rivers, and tributaries thereto seaward of the dividing line between coastal fishing waters and inland fishing waters, as set forth in an agreement adopted by the Wildlife Resources Commission and the Department of Natural and Economic Resources filed with the Secretary of State, entitled "Boundary Lines, North Carolina Commercial Fishing — Inland Fishing Waters, Revised to March 1, 1965";

(3) Renewable resource areas where uncontrolled or incompatible development which results in the loss or reduction of continued long-range productivity could jeopardize future water, food or fiber requirements of more than local concern, which may include:

a. Watersheds or aquifers that are present sources of public water supply, as identified by the Department of Human Resources or Environmental Management Commission, or that are classified for

water-supply use pursuant to G.S. 143-214.1;

b. Capacity use areas that have been declared by the Environmental Management Commission pursuant to G.S. 143-215.13(c) and areas wherein said Environmental Management Commission (pursuant to G.S. 143-215.3(d) or 143-215.3(a)(8)) has determined that a generalized condition of water depletion or water or air pollution exists:

c. Prime forestry land (sites capable of producing 85 cubic feet per acre-year, or more, of marketable timber), as identified by the

Department of Natural and Economic Resources.

(4) Fragile or historic areas, and other areas containing environmental or natural resources of more than local significance, where uncontrolled or incompatible development could result in major or irreversible damage to important historic, cultural, scientific or scenic values or

natural systems, which may include:

a. Existing national or State parks or forests, wilderness areas, the State Nature and Historic Preserve, or public recreation areas; existing sites that have been acquired for any of the same, as identified by the Secretary of Natural and Economic Resources; and proposed sites for any of the same, as identified by the Secretary of Natural and Economic Resources, provided that the proposed site has been formally designated for acquisition by the governmental agency having jurisdiction;

b. Present sections of the natural and scenic rivers system;

c. Stream segments that have been classified for scientific or research uses by the Environmental Management Commission, or that are proposed to be so classified in a proceeding that is pending before said Environmental Management Commission pursuant to G.S. 143-214.1 at the time of the designation of the area of environmental concern;

d. Existing wildlife refuges, preserves or management areas, and proposed sites for the same, as identified by the Wildlife Resources Commission, provided that the proposed site has been formally designated for acquisition (as hereinafter defined) or for inclusion in a cooperative agreement by the governmental agency having jurisdiction;

e. Complex natural areas surrounded by modified landscapes that do not drastically alter the landscape, such as virgin forest stands

within a commercially managed forest, or bogs in an urban complex;

f. Areas that sustain remnant species or aberrations in the landscape produced by natural forces, such as rare and endangered botanical or animal species;

g. Areas containing unique geological formations, as identified by the

State Geologist; and

h. Historic places that are listed, or have been approved for listing by the North Carolina Historical Commission, in the National Register of Historic Places pursuant to the National Historic Preservation Act of 1966; historical, archeological, and other places and properties owned, managed or assisted by the State of North Carolina pursuant to Chapter 121; and properties or areas that are or may be designated by the Secretary of the Interior as registered natural landmarks or as national historic landmarks;

(5) Areas such as waterways and lands under or flowed by tidal waters or navigable waters, to which the public may have rights of access or public trust rights, and areas which the State of North Carolina may be authorized to preserve, conserve, or protect under Article XIV, Sec.

5 of the North Carolina Constitution;

(6) Natural-hazard areas where uncontrolled or incompatible development could unreasonably endanger life or property, and other areas especially vulnerable to erosion, flooding, or other adverse effects of sand, wind and water, which may include:

a. Sand dunes along the Outer Banks;

b. Ocean and estuarine beaches and shoreline;

c. Floodways and floodplains;

d. Areas where geologic and soil conditions are such that there is a substantial possibility of excessive erosion or seismic activity, as identified by the State Geologist;

e. Areas with a significant potential for air inversions, as identified by the Environmental Management Commission.

(7) Areas which are or may be impacted by key facilities.

(c) In those instances where subsection (b) of this section refers to locations identified by a specified agency, said agency is hereby authorized to make the indicated identification from time to time and is directed to transmit the identification to the Commission; provided, however, that no designation of an area of environmental concern based solely on an agency identification of a proposed location may remain effective for longer than three years unless, in the case of paragraphs (4)a and d of subsection (b) of this section, the proposed site has been at least seventy-five percent (75%) acquired. Within the meaning of this section, "formal designation for acquisition" means designation in a formal resolution adopted by the governing body of the agency having jurisdiction (or by its chief executive, if it has no governing body), together with a direction in said resolution that the initial step in the land acquisition process be taken (as by filing an application with the Department of Administration to acquire property pursuant to G.S. 146-23).

(d) Additional grounds for designation of areas of environmental concern are prohibited unless enacted into law by an act of the General Assembly. (1973, c.

476, s. 128; c. 1262, ss. 23, 86; c. 1284, s. 1.)

\$ 113A-114. Designation of interim areas of environmental concern; notice of developments within such areas. — (a) Pending the designation of

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areas of environmental concern pursuant to G.S. 113A-115, the Commission may by rule designate such interim areas of environmental concern (hereafter referred to as "interim areas") as it does appropriate.

(b) Not earlier than 15 days nor later than 75 days after July 1, 1974, the Secretary of Natural and Economic Resources, or his designee or designees, shall hold a one-day public hearing, at which public and private parties shall have the opportunity to present views and comments concerning proposed interim areas, in each of the following cities Elizabeth City, Jacksonville, Manteo, Morehead City, Washington and Wilmington. The following provisions shall apply for all such hearings:

(1) The hearing shall begin with a description of interim areas proposed by

the Secretary.

(2) Notice of any such hearing shall be given not less than seven days before the date of such hearing and shall state the date, time and place of the hearing, the subject of the hearing and the action to be taken. The notice shall state that a copy of a description of interim areas proposed by the Secretary (including a map of such proposed areas) is available for public inspection at the county courthouse of each county affected.

(3) Any such notice shall be published one time in a newspaper of general circulation in the county or counties affected at least seven days

before the date of the public hearing.

- (4) Any person who desires to be heard at such public hearing shall give notice thereof in writing to the Secretary on or before the date set for the hearing. The Secretary is authorized to set reasonable time limits for the oral presentation of views by any one person at any such hearing. The Secretary shall permit anyone who so desires to file a written argument or other statement with him in relation to proposed interim areas within five days following the conclusion of any public hearing or within such additional time as he may allow in his discretion.
- (5) A record of each such hearing shall be presented to the Commission by the Secretary, together with the description of interim areas proposed by the Secretary (with such revisions as he deems appropriate in light of the hearings). Upon receipt of said hearing records and description, and consideration of submitted evidence and arguments with respect to any proposed action pursuant to this section, the Commission shall adopt its final action with respect thereto and shall file a duly certified copy thereof with the Attorney General and with the board of commissioners of each county affected thereby.

(c) The Commission may revise the interim areas (or any part thereof) at any time in the manner provided by subsection (b) of this section, except that the hearing or hearings shall be held in each county in which lands to be affected are located.

(d) The interim areas (with such revisions as may be made pursuant to this section) shall remain in effect until designation of areas of environmental

concern are made purusuant to G.S. 113A-115.

(e) During the period while interim areas are in effect, any person proposing to undertake any development in an interim area shall notify the Commission at least 60 days in advance of initiating construction, installation or other land- or water-disturbing activity in connection with said development. (1973, c. 1284, s. 1; 1975, 2nd Sess., c. 983, s. 77.)

Editor's Note. — The 1975, 2nd Sess., "Secretary of State" in the second sentence of amendment substituted "Attorney General" for subdivision (5) of subsection (b)

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§ 113A-115. Designation of areas of environmental concern. — (a) Prior to adopting any rule permanently designating any area of environmental concern the Secretary and the Commission shall hold a public hearing in each county in which lands to be affected are located, at which public and private parties shall have the opportunity to present comments and views. The following provisions shall apply for all such hearings:

(1) Notice of any such hearing shall be given not less than 30 days before the date of such hearing and shall state the date, time and place of the hearing, the subject of the hearing, and the action to be taken. The notice shall specify that a copy of the description of the area or areas of environmental concern proposed by the Secretary is available for public inspection at the county courthouse of each county affected.

(2) Any such notice shall be published at least once in one newspaper of general circulation in the county or counties affected at least 30 days before the date on which the public hearing is scheduled to begin.

(3) Any person who desires to be heard at such public hearing shall give notice thereof in writing to the Secretary on or before the first date set for the hearing. The Secretary is authorized to set reasonable time limits for the oral presentation of views by any one person at any such hearing. The Secretary shall permit anyone who so desires to file a written argument or other statement with him in relation to any proposed plan any time within 30 days following the conclusion of any public hearing or within such additional time as he may allow by notice given as prescribed in this section.

(4) Upon completion of the hearing and consideration of submitted evidence and arguments with respect to any proposed action pursuant to this section, the Commission shall adopt its final action with respect thereto and shall file a duly certified copy thereof with the Attorney General and with the board of commissioners of each county affected

thereby.

(b) In addition to the notice required by G.S. 113A-115(a)(2) notice shall be given to any interested State agency and to any citizen or group that has filed a request to be notified of a public hearing to be held under this section.

(c) The Commission shall review the designated areas of environmental concern at least biennially. New areas may be designated and designated areas may be deleted, in accordance with the same procedures as apply to the original designations of areas under this section. Areas shall not be deleted unless it is found that the conditions upon which the original designation was based shall have been found to be substantially altered. (1973, c. 1284, s. 1; 1975, 2nd Sess., c. 983, s. 78.)

Editor's Note. — The 1975, 2nd Sess., "Secretary of State" in subdivision (4) of amendment substituted "Attorney General" for subsection (a).

### Part 4. Permit Letting and Enforcement.

§ 113A-116. Local government letter of intent. — Within two years after July 1, 1974, each county and city within the coastal area shall submit to the Commission a written statement of its intent to act, or not to act, as a permitletting agency under G.S. 113A-121. If any city or county states its intent not to act as a permitletting agency or fails to submit a statement of intent within the required period, the Secretary of Natural and Economic Resources shall issue permits therein under G.S. 113A-121; provided that a county may submit

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a letter of intent to issue permits in any city within said county that disclaims its intent to issue permits or fails to submit a letter of intent. Provided, however, should any city or county fail to become a permit-letting agency for any reason, but shall later express its desire to do so, it shall be permitted by the Coastal Resources Commission to qualify as such an agency by following the procedure herein set forth for qualification in the first instance. (1973, c. 1284, s. 1; 1975, c. 452, s. 2.)

Editor's Note. — The 1975 amendment substituted "two years" for "one year" near the beginning of the first sentence.

§ 113A-117. Implementation and enforcement programs. — (a) The Secretary of Natural and Economic Resources shall develop and present to the Commission for consideration and to all cities and counties and lead regional organizations within the coastal area for comment a set of criteria for local implementation and enforcement programs. In the preparation of such criteria, the Secretary shall emphasize the necessity for the expeditious processing of permit applications. Said criteria may contain recommendations and guidelines as to the procedures to be followed in developing local implementation and enforcement programs, the scope and coverage of said programs, minimum standards to be prescribed in said programs, staffing of permit-letting agencies, permit-letting procedures, and priorities of regional or statewide concern. Within 20 months after July 1, 1974, the Commission shall adopt and transmit said criteria (with any revisions) to each coastal-area county and city that has filed

an applicable letter of intent, for its guidance.

(b) The governing body of each city in the coastal area that filed an affirmative letter of intent shall adopt an implementation and enforcement plan with respect to its zoning area within 36 months after July 1, 1974. The board of commissioners of each coastal-area county that filed an affirmative letter of intent shall adopt an implementation plan with respect to portions of the county outside city zoning areas within 36 months after July 1, 1974, provided, however, that a county implementation and enforcement plan may also cover city jurisdictions for those cities within the counties that have not filed affirmative letters of intent pursuant to G.S. 113A-116. Prior to adopting the implementation and enforcement program the local governing body shall hold a public hearing at which public and private parties shall have the opportunity to present comments and views. Notice of the hearing shall be given not less than 15 days before the date of the hearing, and shall state the date, time and place of the hearing, the subject of the hearing, and the action which is to be taken. The notice shall state that copies of the proposed implementation and enforcement program are available for public inspection at the county courthouse. Any such notice shall be published at least once in one newspaper of general circulation in the county at least 15 days before the date on which the public hearing is scheduled to begin.

(c) Each coastal-area county and city shall transmit its implementation and enforcement program when adopted to the Commission for review. The Commission shall afford interested persons an opportunity to present objections and comments regarding the program, and shall review and consider each local implementation and enforcement program submitted in light of such objections and comments, the Commission's criteria and any general standards of review applicable throughout the coastal area as may be adopted by the Commission. Within 45 days after receipt of a local implementation and enforcement program the Commission shall either approve the program or notify the county or city

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of the specific changes that must be made in order for it to be approved. Following such changes, the program may be resubmitted in the same manner

as the original program.

(d) If the Commission determines that any local government is failing to administer or enforce an approved implementation and enforcement program. it shall notify the local government in writing and shall specify the deficiencies of administration and enforcement. If the local government has not taken corrective action within 90 days of receipt of notification from the Commission, the Commission shall assume enforcement of the program until such time as the local government indicates its willingness and ability to resume administration and enforcement of the program. (1973, c. 1284, s. 1; 1975, c. 452, s. 3.)

Editor's Note. — The 1975 amendment substituted "20 months" for "14 months" in the last sentence of subsection (a) and "36 months"

for "20 months" in the first and second sentences of subsection (b).

§ 113A-118. Permit required. — (a) After the date designated by the Secretary of Natural and Economic Resources pursuant to G.S. 113A-125, every person before undertaking any development in any area of environmental concern shall obtain (in addition to any other required State or local permit) a

permit pursuant to the provisions of this Part.

(b) Under the expedited procedure provided for by G.S. 113A-121, the permit shall be obtained from the appropriate city or county for any minor development; provided, that if the city or county has not developed an approved implementation and enforcement program, the permit shall be obtained from the Secretary of Natural and Economic Resources.

(c) Permits shall be obtained from the Commission or its duly authorized agent, with a right to appeal a permit denial to the Commission pursuant to the quasi-judicial procedures provided in G.S. 113A-122.

(d) Within the meaning of this Part:

(1) A "major development" is any development which requires permission, licensing, approval, certification or authorization in any form from the Environmental Management Commission, the Department of Human Resources, the State Department of Natural and Economic Resources, the State Department of Administration, the North Carolina Mining Commission, the North Carolina Pesticides Board, or the North Carolina Sedimentation Control Board; or which occupies a land or water area in excess of 20 acres; or which contemplates drilling for or excavating natural resources on land or under water; or which occupies on a single parcel a structure or structures in excess of a ground area of 60,000 square feet.

(2) A "minor development" is any development other than a "major

development.''

- (e) If, within the meaning of G.S. 113A-103(5)b3, the siting of any utility facility for the development, generation or transmission of energy is subject to regulation under this Article rather than by the State Utilities Commission or by other law, permits for such facilities shall be obtained from the Coastal Resources Commission rather than from the appropriate city or county. (1973, c. 476, s. 128; c. 1262, ss. 23, 33; c. 1284, s. 1.)
- § 113A-119. Permit applications generally. (a) Any person required to obtain a permit under this Part shall file with the Secretary of Natural and Economic Resources and (in the case of a permit sought from a city or county) with the designated local official an application for a permit in accordance with the form and content designated by the Secretary and approved by the Commission. The applicant must submit with the application a check or money

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order payable to the Department or the city or county, as the case may be, constituting a reasonable fee (not to exceed twenty-five dollars (\$25.00)) set by the Commission to cover the administrative costs in processing the said

application.

(b) Upon receipt of an application, the Secretary shall issue public notice of the proposed development (i) by mailing a copy of the application, or a brief description thereof together with a statement indicating where a detailed copy of the proposed development may be inspected, to any citizen or group which has filed a request to be notified of the proposed development, and to any interested State agency; (ii) by posting or causing to be posted a copy of the application at the location of the proposed development; and (iii) by publishing notice of the application at least once in one newspaper of general circulation in the county or counties wherein the development would be located at least seven days before final action on a permit under G.S. 113A-121 or before the beginning of the hearing on a permit under G.S. 113A-122. The notice shall set out that any comments on the development should be submitted to the Secretary by a specified date, not to exceed 15 days from the date of the newspaper publication of the notice. Public notice under this subsection is mandatory.

(c) Within the meaning of this Part, the "designated local official" is the official who has been designated by the local governing body to receive and

consider permit applications under this Part. (1973, c. 1284, s. 1.)

§ 113A-120. Grant or denlal of permits. — (a) After consideration of submitted evidence and arguments submitted at the hearing, or otherwise in the case where no hearing was conducted, the responsible official or body shall deny the application for permit upon finding:

(1) In the case of coastal wetlands, that the development would contravene an order that has been or could be issued pursuant to G.S. 113-230.

(2) In the case of estuarine waters, that a permit for the development would

be denied pursuant to G.S. 113-229(e).

(3) In the case of a renewable resource area, that the development will result in loss or significant reduction of continued long-range productivity that would jeopardize one or more of the water, food or fiber requirements of more than local concern identified in paragraphs a to c of subsection (b)(3) of G.S. 113A-113.

(4) In the case of a fragile or historic area, or other area containing environmental or natural resources of more than local significance, that the development will result in major or irreversible damage to one or more of the historic, cultural, scientific, environmental or scenic values or natural systems identified in paragraphs a to h of subsection (b)(4) of G.S. 113A-113.

(5) In the case of areas covered by G.S. 113A-113(4) [G.S. 113A-113(b)(5)], that the development will jeopardize the public rights or interests

specified in said subdivision.

(6) In the case of natural hazard areas, that the development would occur in one or more of the areas identified in paragraphs a to e of subsection (b)(6) [of G.S. 113A-113] in such a manner as to unreasonably endanger life or property.

(7) In the case of areas which are or may be impacted by key facilities, that the development is inconsistent with the State guidelines or the local land-use plans, or would contravene any of the provisions of

subdivisions (1) to (6) of this subsection.

(8) In any case, that the development is inconsistent with the State guidelines or the local land-use plans.

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(b) In the absence of such findings, a permit shall be granted. The permit may be conditioned upon the applicant's amending his proposal to take whatever measures are reasonably necessary to protect the public interest with respect

to the factors enumerated in subsection (a) of this section.

(c) Variances. — Any person may petition the Commission for a variance granting permission to use his land in a manner otherwise prohibited by rules, regulations, standards or limitations prescribed by the Commission, or orders issued by the Commission, pursuant to this Article. When it finds that (i) practical difficulties or unnecessary hardships would result from strict application of the guidelines, rules, regulations, standards, or other restrictions applicable to the property, (ii) such difficulties or hardships result from conditions which are peculiar to the property involved, (iii) such conditions could not reasonably have been anticipated when the applicable guidelines, rules, regulations, standards, or restrictions were adopted or amended, the Commission may vary or modify the application of the restrictions to the property so that the spirit, purpose, and intent of the restrictions are preserved, public safety and welfare secured, and substantial justice preserved. In varying such regulations, the Commission may impose reasonable and appropriate conditions and safeguards upon any permit it issues. The Commission may conduct a hearing within 45 days from the receipt of the petition and shall notify such persons and agencies that may have an interest in the subject matter of the time and place of the hearing. (1973, c. 1284, s. 1.)

§ 113A-121. Permits for minor developments under expedited procedures.

— (a) Applications for permits for minor developments shall be expeditiously processed so as to enable their promptest feasible disposition.

(b) In cities and counties that have developed approved implementation and enforcement programs, applications for permits for minor developments shall be considered and determined by the designated local official of the city or county as the case may be. In cities and counties that have not developed approved implementation and enforcement programs, such applications shall be considered and determined by the Secretary of Natural and Economic Resources.

(c) Failure of the Secretary or the designated local official (as the case may be) to approve or deny an application for a permit for a minor development within 30 days from receipt of application shall be treated as approval of such application, except that the Secretary or the designated local official (as the case may be) may extend such deadline by not more than an additional 30 days if necessary properly to consider the application. No waiver of the foregoing time limitation (or of the time limitation established in G.S. 113A-122(c)) shall be required of any applicant.

(d) Any person who is directly affected by the decision of the Secretary or the designated local official (as the case may be) to grant or deny an application for minor development permit may request within 20 days of such action, a hearing before the Commission. In the case of a grant or denial of a permit by a local official, the Secretary shall be considered to be a person affected by the decision. Pending final disposition of any such appeal, no action shall be taken which would be unlawful in the absence of a permit issued under this section.

(1973, c. 1284, s. 1.)

§ 113A-122. Permits under quasi-judicial procedures. — (a) The procedure set forth in this section applies to all appeals of permit applications for major developments, as well as to permit applications for minor developments whose

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disposition was appealed under G.S. 113A-121(d). All permit appeals subject to this section shall be heard by the Commission.

(b) The following provisions shall be applicable in connection with hearings

pursuant to this section:

(1) Any hearing held pursuant to this section shall be held upon not less than 30 days' written notice given by the Commission to any person who is a party to the proceedings with respect to which such hearing is to be held, unless a shorter notice is agreed upon by all such parties.

(2) All hearings under this section shall be open to the public. Any person to whom a delegation of power is made to conduct a hearing shall report the hearing with its evidence and record to the Commission for decision.

(3) A full and complete record of all proceedings at any hearing under this section shall be taken by a reporter appointed by the Commission or by other method approved by the Attorney General. Any party to a proceeding shall be entitled to a copy of such record upon the payment of the reasonable cost thereof as determined by the Commission.

(4) The Commission and its duly authorized agents shall follow generally the procedures applicable in civil actions in the superior court insofar as practicable, including rules and procedures with regard to the taking and use of depositions, the making and use of stipulations, and the entering into of agreed settlements and consent orders.

(5) The Commission and its duly authorized agents may administer oaths and may issue subpoenas for the attendance of witnesses and the production of books, papers, and other documents belonging to the said

person.

(6) Subpoenas issued by the Commission in connection with any hearing under this section shall be directed to any officer authorized by law to serve process, and the further procedures and rules of law applicable with respect thereto shall be prescribed in connection with subpoenas to the same extent as if issued by a court of record. In case of a refusal to obey a subpoena issued by the Commission, application may be made to the superior court of the appropriate county for enforcement thereof.

(7) The burden of proof at any hearing under this section on appeal pursuant to G.S. 113A-121(d) shall be upon the Secretary. The burden of proof at any hearing under this section on a permit application for a major development shall be upon the applicant. The provisions of this paragraph shall apply only to the hearings specified in this paragraph.

(8) No decision or order of the Commission shall be made in any proceeding unless the same is supported by competent, material, and substantial

evidence upon consideration of the whole record.

(9) Following any hearing, the Commission shall afford the parties thereto an opportunity to submit within 30 days, or within such additional time as prescribed by the Commission, proposed findings of fact and

conclusions of law and any brief in connection therewith.

(10) After hearing the evidence, the Commission shall grant or deny the permit in accordance with the provisions of G.S. 113A-120. All such orders and decisions of the Commission shall set forth separately the Commission's findings of fact and conclusions of law and shall, wherever necessary, cite the appropriate provision of law or other source of authority on which any action or decision of the Commission is based.

(11) The Commission shall have the authority to adopt a seal which shall be the seal of said Commission and which shall be judicially noticed by

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the courts of the State. Any document, proceeding, order, decree, special order, rule, regulation, rule of procedure or any other official act or records of the Commission or its minutes may be certified by the Executive Director under his hand and the seal of the Commission and when so certified shall be received in evidence in all actions or proceedings in the courts of the State without further proof of the identity of the same if such records are competent, relevant and material in any such action to proceedings. The Commission shall have the right to take judicial notice of all studies, reports, statistical data or any other official reports or records of the federal government or of any sister state and all such records, reports and data may be placed in evidence by the Commission or by any other person or interested party where material, relevant and competent.

(c) Failure of the Commission to approve or deny an application for a permit (or to dispose of an appeal) pursuant to this section within 90 days from receipt of application or notice of appeal shall be treated as approval of such application or of the action appealed from, as the case may be, except that the Commission may extend such deadline by not more than an additional 90 days if necessary

properly to consider the application or the appeal.

(d) All notices which are required to be given by the Secretary or Commission or by any party to a proceeding under this section shall be given by registered or certified mail to all persons entitled thereto. The date of receipt or refusal for such registered or certified mail shall be the date when such notice is deemed to have been given. Notice by the Commission may be given to any person upon whom a summons may be served in accordance with the provisions of law covering civil actions in the superior courts of this State. The Commission may prescribe the form and content of any particular notice. (1973, c. 1284, s. 1.)

§ 113A-123. Judicial review. — (a) Any person directly affected by any final decision or order of the Commission under this Part may appeal such decision or order to the superior court of the county where the land or any part thereof is located, pursuant to the provisions of Chapter 150[A] of the General Statutes. Pending final disposition of any appeal, no action shall be taken which

would be unlawful in the absence of a permit issued under this Part.

(b) Any person having a recorded interest or interest by operation of law in or registered claim to land within an area of environmental concern affected by any final decision or order of the Commission under this Part may, within 90 days after receiving notice thereof, petition the superior court to determine whether the petitioner is the owner of the land in question, or an interest, therein, and in case he is adjudged the owner of the subject land, or an interest therein, the court shall determine whether such order so restricts the use of his property as to deprive him of the practical uses thereof, being not otherwise authorized by law, and is therefore an unreasonable exercise of the police power because the order constitutes the equivalent of taking without compensation. The burden of proof shall be on petitioner as to ownership and the burden of proof shall be on the Commission to prove that the order is not an unreasonable exercise of the police power, as aforesaid. Either party shall be entitled to a jury trial on all issues of fact, and the court shall enter a judgment in accordance with the issues, as to whether the Commission order shall apply to the land of the petitioner. The Secretary of Natural and Economic Resources shall cause a copy of such finding to be recorded forthwith in the register of deeds office in the county where the land is located. The method provided in this subsection § 113A-124 § 113A-121

for the determination of the issue of whether such order constitutes a taking without compensation shall be exclusive and such issue shall not be determined in any other proceeding. Any action authorized by this subsection shall be calendared for trial at the next civil session of superior court after the summons and complaint have been served for 30 days, regardless of whether issues were joined more than 10 days before the session. It is the duty of the presiding judge to expedite the trial of these actions and to give them a preemptory setting over all others, civil or criminal. From any decision of the superior court either party may appeal to the court of appeals as a matter of right

(c) After a finding has been entered that such order shall not apply to certain land as provided in the preceding subsection, the Department of Administration, upon the request of the Commission and upon finding that sufficient funds are available therefor, and with the consent of the Governor and Council of State may take the fee or any lesser interest in such land in the name of the State by eminent domain under the provisions of Chapter 146 of the General Statutes and hold the same for the purposes set forth in this Article. (1973, c. 1284, s.

1; c. 1331, s. 3.)

Editor's Note. — Pursuant to Session Laws 1973, c. 1331, s. 3, effective July 1, 1975, the reference to Chapter 150[A] has been substituted for a reference to Article 33 of Chapter 143 in subsection (a).

Session Laws 1975, c. 69, s. 4, amends Session Laws 1973, c. 1331, s. 4, so as to change the effective date of the 1973 act from July 1, 1975, to Feb. 1, 1976.

§ 113A-124. Additional powers and duties. — (a) The Secretary of Natural and Economic Resources shall have the following additional powers and duties under this Article:

(1) To conduct or cause to be conducted, investigations of proposed developments in areas of environmental concern in order to obtain sufficient evidence to enable a balanced judgment to be rendered concerning the issuance of permits to build such developments.

(2) To cooperate with the Secretary of the Department of Administration

in drafting State guidelines for the coastal area.

(3) To keep a list of interested persons who wish to be notified of proposed developments and proposed rules designating areas of environmental concern and to so notify these persons of such proposed developments by regular mail. A reasonable registration fee to defray the cost of handling and mailing notices may be charged to any person who so registers with the Commission.

(4) To propose rules and regulations to implement this Article for

consideration by the Commission.

(5) To delegate such of his powers as he may deem appropriate to one or more qualified employees of the Department of Natural and Economic Resources or to any local government, provided that the provisions of any such delegation of power shall be set forth in departmental regulations.

(6) To delegate the power to conduct a hearing, on his behalf, to any member of the Commission or to any qualified employee of the Department of Natural and Economic Resources. Any person to whom a delegation of power is made to conduct a hearing shall report his recommendations with the evidence and the record of the hearing to

the Secretary for decision or action.

(b) In order to earry out the provisions of this Article the secretaries of administration and of Natural and Economic Resources may employ such

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cierical, technical and professional personnel, and consultants with such qualifications as the Commission may prescribe, in accordance with the State personnel regulations and budgetary laws, and are hereby authorized to pay such personnel from any funds made available to them through grants, appropriations, or any other sources. In addition, the said secretaries may contract with any local governmental unit or lead regional organization to carry out the planning provisions of this Article.

(c) The Commission shall have the following additional powers and duties

under this Article:

(1) To recommend to the Secretary of Natural and Economic Resources the acceptance of donations, gifts, grants, contributions and appropriations from any public or private source to use in carrying out the provisions of this Article.

(2) To recommend to the Secretary of Administration the acquisition by purchase, gift, condemnation, or otherwise, lands or any interest in any

lands within the coastal area.

(3) To hold such public hearings as the Commission deems appropriate.

(4) To delegate the power to conduct a hearing, on behalf of the Commission, to any member of the Commission or to any qualified employee of the Department of Natural and Economic Resources. Any person to whom a delegation of power is made to conduct a hearing shall report his recommendations with the evidence and the record of the hearing to the Commission for decision or action.

(5) To adopt from time to time and to modify and revoke official regulations interpreting and applying the provisions of this Article and rules of procedure establishing and amplifying the procedures to be followed

in the administration of this Article.

(d) The Attorney General shall act as attorney for the Commission and shall initiate actions in the name of, and at the request of, the Commission, and shall represent the Commission in the hearing of any appeal from or other review of any order of the Commission. (1973, c. 1284, s. 1.)

- § 113A-125. Transitional provisions.—(a) Existing regulatory permits shall continue to be administered within the coastal area by the agencies presently responsible for their administration until a date (not later than 44 months after July 1, 1974), to be designated by the Secretary of Natural and Economic Resources as the permit changeover date. Said designation shall be effective from and after its filing with the Secretary of State.
- (b) From and after the "permit changeover date," all existing regulatory permits within the coastal area shall be administered in coordination and consultation with (but not subject to the veto of) the Commission. No such existing permit within the coastal area shall be issued, modified, renewed or terminated except after consultation with the Commission. The provisions of this subsection concerning consultation and coordination shall not be interpreted to authorize or require the extension of any deadline established by this Article or any other law for completion of any permit, licensing, certification or other regulatory proceedings.

(c) Within the meaning of this section, "existing regulatory permits" include dredge and fill permits issued pursuant to G.S. 113-229; sand dime permits issued pursuant to G.S. 104B-4; air pollution control and water pollution control permits, special orders or certificates issued pursuant to G.S. 143-215.1 and 143-215.2, or any other permits, licenses, authorizations, approvals or

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certificates issued by the Board of Water and Air Resources pursuant to Chapter 143; capacity use area permits issued pursuant to G.S. 143-215.15; final approval of dams pursuant to G.S. 143-215.30; floodway permits issued pursuant to G.S. 143-215.54; water diversion authorizations issued pursuant to G.S. 143-354(c); oil refinery permits issued pursuant to G.S. 143-215.99; mining operating permits issued pursuant to G.S. 74-51; permissions for construction of wells issued pursuant to G.S. 87-88; and regulations concerning pesticide application within the coastal area issued pursuant to G.S. 143-458; approvals by the Department of Human Resources of plans for water supply, drainage or sewerage, pursuant to G.S. 130-161.1 and 130-161.2; standards and approvals for solid waste disposal sites and facilities, adopted by the Department of Human Resources pursuant to Chapter 130, Article 13B; permits relating to sanitation of shellfish, crustacea or scallops issued pursuant to Chapter 130, Articles 14A or 14B; permits, approvals, authorizations and regulations issued by the Department of Human Resources pursuant to Articles 23 or 24 of Chapter 130 with reference to mosquito control programs or districts; any permits, licenses, authorizations, regulations, approvals or certificates issued by the Department of Human Resources relating to septic tanks or water wells; oil or gas well regulations and orders issued for the protection of environmental values or resources pursuant to G.S. 113-391; a certificate of public convenience and necessity issued by the State Utilities Commission pursuant to Chapter 62 for any public utility plant or system, other than a carrier of persons or property; permits, licenses, leases, options, authorization or approvals relating to the use of State forestlands, State parks or other state-owned land issued by the State Department of Administration, the State Department of Natural and Economic Resources or any other State department, agency or institution; any approvals of erosion control plans that may be issued by the North Carolina-Sedimentation Control Commission pursuant to G.S. 113A-60 or 113A-61; and any permits, licenses, authorizations, regulations, approvals or certificates issued by any State agency pursuant to any environmental protection legislation not specified in this subsection that may be enacted prior to the permit changeover date.

(d) The Commission shall conduct continuing studies addressed to developing a better coordinated and more unified system of environmental and land-use permits in the coastal area, and shall report its recommendations thereon from time to time to the General Assembly. Specifically, the Commission shall report to the 1975 General Assembly recommended procedures to implement the requirement of subsection (b) of this section for administration of existing regulatory permits within the coastal area in coordination and consultation with the Commission. In its 1975 recommendations, the Commission shall seek to develop procedures that are administratively practicable, that are not unduly burdensome for the affected agencies, and that are adapted to the circumstances of each agency, taking into account the volume of permits issued, the location of the regulated activity (whether or not within or near an area of environmental concern), the significance of the environmental consequences of the regulated activity, and the scheduling problems and needs of the regulatory agency: Provided, however, that no consultation or coordination shall be required in advance of issuance of individual pesticide applicator licenses, but only periodic consultation concerning the overall effect of the applicator licensing program within the coastal area. In its 1975 recommendations, the Commission shall also evaluate the desirability of legislation to provide for coordination of § 113A-126 § 113A-126

environmental permits at the option of permit applicants. In developing its 1975 recommendations, the Commission shall meet with all affected State agencies and shall hold one or more public hearings concerning its recommendations. (1973, c. 1284, s. 1; 1975, c. 452, s. 4.)

Editor's Note. — The 1975 amendment substituted "44 months" for "27 months" in the parentheses in the first sentence of subsection (a).

Section 130-1612, referred to in subsection (c) of this section, does not exist.

Section 143-215.99, referred to in subsection (c), was repealed by Session Laws 1975, c. 521, s. 1. As to provisions relating to oil refining facility permits, see now § 143-215.100.

§ 113A-126. Injunctive relief and penalties. — (a) Upon violation of any of the provisions of this Article or of any regulation, rule or order adopted under the authority of this Article the Secretary may, either before or after the institution of proceedings for the collection of any penalty imposed by this Article for such violation, institute a civil action in the General Court of Justice in the name of the State upon the relation of the Secretary for injunctive relief to restrain the violation and for such other or further relief in the premises as said court shall deem proper. Neither the institution of the action nor any of the proceedings thereon shall relieve any party to such proceedings from any

penalty prescribed by this Article for any violation of same.

(b) Upon violation of any of the provisions of this Article relating to permits for minor developments issued by a local government, or of any regulation, rule or order adopted under the authority of this Article relating to such permits, the designated local official may, either before or after the institution of proceedings for the collection of any penalty imposed by this Article for such violation, institute a civil action in the General Court of Justice in the name of the affected local government upon the relation of the designated local official for injunctive relief to restrain the violation and for such other and further relief in the premises as said court shall deem proper. Neither the institution of the action nor any of the proceedings thereon shall relieve any party to such proceedings from any penalty prescribed by this Article for any violation of same.

(c) Any person who shall be adjudged to have knowingly or willfully violated any provision of this Article, or any regulation, rule or order adopted pursuant to this Article, shall be guilty of a misdemeanor, and for each violation shall be liable for a penalty of not less than one hundred dollars (\$100.00) nor more than one thousand dollars (\$1,000) or shall be imprisoned for not more than 60 days, or both. In addition, if any person continues to violate or further violates, any such provision, regulation, rule or order after written notice from the Secretary or (in the case of a permit for a minor development issued by a local government) written notice from the designated local official, the court may determine that each day during which the violation continues or is repeated constitutes a separate violation subject to the foregoing penalties.

(d) (1) A civil penalty of not more than one thousand dollars (\$1,000) may be

assessed by the Commission against any person who:

a. Is required but fails to apply for or to secure a permit required by G.S. 113A-122, or who violates or fails to act in accordance with the terms, conditions, or requirements of such permit.

b. Fails to file, submit, or make available, as the case may be, any documents, data or reports required by the Commission pursuant

to this Article.

c. Refuses access to the Commission or its duly designated representative, who has sufficiently identified himself by

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displaying official credentials, to any premises, not including any occupied dwelling house or curtilage, for the purpose of conducting any investigations provided for in this Article.

d. Violates any duly adopted regulation of the Commission implementing the provisions of this Article. Provided, however, that this paragraph d shall not apply to regulations relating to

minor developments.

(2) If any action or failure to act for which a penalty may be assessed under this subsection is willful, the Commission may assess a penalty not to exceed one thousand dollars (\$1,000) for each separate violation, after the first assessment, provided, however, no penalty shall be imposed under this subsection pending court review of the first assessment, if

appealed pursuant to subdivision (3).

- (3) The Commission may assess the penalties provided for in this subsection. When the Commission proposes to arsess a penalty, it shall notify the person whom it proposes to assess by registered or certified mail of the proposal to assess a penalty, and the notice shall specify the reason for assessment and the date of the proposed hearing when assessment is to be determined. The hearing shall be no sooner than 15 days after the mailing of notice of the proposed assessment. Any hearing shall be based upon competent evidence, and the person the Commission proposes to assess shall be allowed to present evidence. and the hearing shall be reported. The person assessed may apply to the superior court of the county where such person resides for review of the hearing and assessment and the scope of the court's review of the Commission's action (which shall include a review of the amount of the assessment), shall be as provided in G.S. 143-315. If the person assessed fails to pay the amount of the assessment to the Department of Natural and Economic Resources within 30 days after receipt of notice, or such longer period, not to exceed 180 days, as the Commission may specify, the Commission may institute a civil action in the superior court of the county in which the violation occurred or, in the discretion of the Commission in the superior court of the county in which the person assessed resides or has his or its principal place of business, to recover the amount of the assessment. In any such civil action, the scope of the court's review of the Commission's action (which shall include a review of the amount of the assessment), shall be as provided in G.S. 143-315.
- (4) In determining the amount of the penalty the Commission shall consider the degree and extent of harm caused by the violation and the cost of rectifying the damage. (1973, c. 1284, s. 1.)

Editor's Note. — Section 143-315, referred to provisions as to judicial review of decisions of administrative agencies, see §§ 150A-43 by Session Laws 1973, c. 1331, s. 2. For present through 150A-52.

§ 113A-127. Coordination with the federal government. — All State agencies shall keep informed of federal and interstate agency plans, activities, and procedures within their area of expertise that affect the coastal area. Where federal or interstate agency plans, activities or procedures conflict with State policies, all reasonable steps shall be taken by the State to preserve the integrity of its policies. (1973, c. 1284, s. 1.)

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§ 113A-128. Protection of landowners' rights. — Nothing in this Article authorizes any governmental agency to adopt a rule or regulation or issue any order that constitutes a taking of property in violation of the Constitution of this State or of the United States. (1973, c. 1284, s. 1.)

### APPENDIX A.11

### DESCRIPTION OF AREAS OF ENVIRONMENTAL CONCERN<sup>121</sup>

#### THE ESTUARINE SYSTEM

## Estuarine System Categories

The first AECs discussed collectively are those water and land areas of the coast that contribute enormous economic, social, and biological values to North Carolina as components of the estuarine system. Included within the estuarine system are the following AEC categories: estuarine waters, coastal wetlands, public trust areas, and estuarine shorelines. Each of the AECs is either geographically within the estuary or, because of its locations and nature, may significantly affect the estuary.

### A. Coastal Wetlands

Description. Coastal wetlands are defined as any salt marsh or other marsh subject to regular or occasional flooding by tides, including wind tides (whether or not the tide waters reach the marshland areas through natural or artificial watercourses), provided this shall not include hurricane or tropical storm tides.

Coastal wetlands contain some, but not necessarily all, of the following marsh plant species:

- (1) Cord Grass (Spartina alterniflora).
- (2) Black Needlerush (Juncus roemerianus).
- (3) Glasswort (Salicornia spp.).
- (4) Salt Grass (Distichlis spicata).
- (5) Sea Lavender (Limonium spp.).
- (6) Bulrush (Scirpus spp.).
- (7) Saw Grass (Cladium jamaicense).
- (8) Cat-tail (Typha spp.).
- (9) Salt Meadow Grass (Spartina patens).
- (10) Salt Reed Grass (Spartina patens).

Included in this definition of coastal wetlands is "such contiguous land as the Secretary of (DNRCD) reasonably deems necessary to affect by any such order in carrying out the purposes of this section."

<sup>&</sup>lt;sup>121</sup>15 NCAC 7H .0100-.0510.

### B. Estuarine Waters

Description. Estuarine waters are defined in G.S. 113A-113(b)(2) as "all of the water of the Atlantic Ocean within the boundary of North Carolina and all the waters of the bays, sounds, rivers, and tributaries thereto seaward of the dividing line between coastal fishing waters and inland fishing waters, as set forth in an agreement adopted by the Wildlife Resources Commission and the Department of Natural Resources and Community Development filed with the Secretary of State, entitled 'Boundary Lines, North Carolina Commercial Fishing - Inland Fishing Waters.'"

## C. Public Trust Areas

Description. Public trust areas are all waters of the Atlantic Ocean and the lands thereunder from the mean high water mark to the seaward limit of state jurisdiction; all natural bodies of water subject to measurable lunar tides and lands thereunder to the mean high water mark; all navigable bodies of water and lands thereunder to the mean high water level or mean water level as the case may be, except privately-owned lakes to which the public has no right of access; all water in artificially created bodies of water containing significant public fishing resources or other public resources which are accessible to the public by navigation from bodies of water in which the public has rights of navigation; and all waters in artificially created bodies of water in which the public has acquired rights by prescription, custom, usage, dedication, or any other means. In determining whether the public has acquired rights in artificially created bodies of water, the following factors shall be considered:

- (1) the use of the body of water by the public,
- (2) the length of time the public has used the area,
- (3) the value of public resources in the body of water,
- (4) whether the public resources in the body of water are mobile to the extent that they can move into natural bodies of water.
- (5) whether the creation of the artificial body of water required permission from the state, and
- (6) the value of the body of water to the public for navigation from one public area to another public area.

## D. Estuarine Shorelines

Description. Estuarine shorelines are those non-ocean shorelines which are especially vulnerable to erosion, flooding, or other adverse effects of wind and water and are intimately connected to the estuary. This area extends from the mean high water level or normal water level along the estuaries, sounds, bays, and brackish waters as set forth in an agreement adopted by the Wildlife Resources Commission and the Department of Natural Resources and Community Development for a distance of 75 feet landward.

#### II. OCEAN HAZARD AREAS

# Ocean Hazard Categories

The next broad grouping is composed of those AECs that are considered natural hazard areas along the Atlantic Ocean shoreline where, because of their special vulnerability to erosion or other adverse effects of sand, wind, and water, uncontrolled or incompatible development could unreasonably endanger life or property. Ocean hazardous areas includes beaches, frontal dunes, inlet lands, and other areas in which geologic, vegetative and soil conditions indicate a substantial possibility of excessive erosion or flood damage.

# AECs Within Ocean Hazard Areas

The ocean hazard system of AECs contains all of the following areas:

### A. Ocean Erodible Area

This is the area in which there exists a substantial possibility of excessive erosion and significant shoreline fluctuation. The seaward boundary of this area is the mean low water line. The landward extent of this area is determined as follows:

- (1) a distance landward from the first line of stable natural vegetation to the recession line that would be established by multiplying the long-term annual erosion rate, as most recently determined by the Coastal Resources Commission, times 30, provided that where there has been no long-term erosion or the rate is less than two feet per year, this distance shall be set at 60 feet landward from the first line of stable natural vegetation; and
- (2) a distance landward from the recession line established in Subparagraph (1) of this Paragraph to the recession line that would be generated by a storm having a one percent chance of being equalled or exceeded in any given year.

# B. The High Hazard Flood Area

This the area subject to high velocity waters (including, but not limited to, hurricane wave wash) in a storm having a one percent chance of being equalled or exceeded in any given year, as identified as zone V1-30 on the flood insurance rate maps of the Federal Insurance Administration, U.S. Department of Housing and Urban Development. In the absence of these rate maps, other available base flood elevation data prepared by a federal, state, or other source may be used, provided said data source is approved by the CRC.

# C. Inlet Hazard Area

The inlet hazard areas are those lands identified by the State Geologist to have a substantial possibility of excessive erosion that are located adjacent to inlets. This area shall extend landward from the mean low water line a distance sufficient to encompass that area within which the inlet will, based on statistical analysis, migrate, and shall consider such factors as previous inlet territory, structurally weak areas near the inlet (such as an unusually narrow barrier island, an unusually long channel feeding the inlet, or an overwash area), and external influences such as jetties and channelization. These areas are identified as recommended inlet hazard areas in the report to the CRC entitled, "Inlet Hazard Area" by Loie J. Priddy and Rick Carraway (September 1978). In all cases, this area shall be an extension of the adjacent ocean erodible area and in no case shall the width of the inlet hazard area be less than the width of the adjacent ocean erodible area.

#### III. PUBLIC WATER SUPPLIES

## Public Water Supply Categories

The third broad grouping of AECs includes valuable small surface water supply watersheds and public water supply well fields.

# A. Small Surface Water Supply Watersheds

<u>Description</u>. These are catchment areas situated entirely within the coastal area which contain a water body classified as A-II by the Environmental Management Commission. This means the maximum beneficial use of these bodies of water is to serve as public water supply areas. The watershed of the A-II water bodies has been identified by the North Carolina Department of Human Resources for designation by the CRC.

# B. Public Water Supply Well Fields

Description. These are areas of well-drained sands that extend downward from the surface into the shallow groundwater table which supplies the public with potable water. These surficial well fields are confined to a readily definable geographic area as identified by the North Carolina Department of Human Resources with assistance and support from local governments.

#### IV. NATURAL AND CULTURAL RESOURCE AREA

The fourth and final group of AECs is gathered under the heading of fragile coastal natural and cultural resource areas and is defined as areas containing environmental, natural or cultural resources of more than local significance in which uncontrolled or incompatible development could result in major or irreversible damage to natural systems or cultural resources, scientific, educational, or associative values, or aesthetic qualities.

# A. <u>Coastal Areas that Sustain Remnant Species</u>

<u>Description</u>. Coastal areas that sustain remnant species are those areas that support native plants or animals determined to be rare or endangered (synonymous with threatened and endangered), within the coastal

area. Such places provide habitats necessary for the survival of existing populations, or communities of rare or endangered species within the coastal area. Determination will be made by the Commission based upon the listing adopted by the North Carolina Wildlife Resources Commission or the federal government listing; upon written reports or testimony of experts indicating that a species is rare or endangered within the coastal area; and upon consideration of written testimony of local government officials, interest groups, and private landowners.

## B. Coastal Complex Natural Areas

Description. Coastal complex natural areas are defined as lands that support native plant and animal communities and provide habitat qualities which have remained essentially unchanged by human activity. Such areas may be either significant components of coastal systems or especially notable habitat areas of scientific, educational, or aesthetic value. They may be surrounded by landscape that has been modified but does not drastically alter conditions within the natural area.

# C. Unique Coastal Geologic Formations

<u>Description</u>. Unique coastal geologic formations are defined as sites that contain geologic formations that are unique or otherwise significant components of coastal systems, or that are especially notable examples of geologic formations or processes in the coastal area. Such areas will be evaluated by the Commission after identification by the State Geologist.

# D. <u>Significant Coastal Archaeological Resources</u>

<u>Description</u>. Significant coastal archaeological resources are defined as areas that contain archaeological remains (objects, features, and/or sites) that have more than local significance to history or prehistory. Such areas will be evaluated by the North Carolina Historical Commission in consultation with the CRC.

# E. <u>Significant Coastal Historic Architectural Resources</u>

<u>Description</u>. Significant coastal historic architectural resources are defined as districts, structures, buildings, sites or objects that have more than local significance to history or architecture. Such areas will be evaluated by the North Carolina Historical Commission in consultation with the CRC.

#### APPENDIX A.12

## CRITERIA FOR GRANT OR DENIAL OF CAMA PERMIT APPLICATIONS 122

- (A) After consideration of evidence and arguments submitted at the hearing or otherwise properly submitted, and after consideration of other agency's comments, the Commission shall deny the application for permit if it makes any of the following findings:
  - (1) in the case of coastal wetland, that the development would contravene an order that has been or could be issued pursuant to G.S. 113-230;
  - (2) in the case of estuarine waters, that a permit for the development would be denied pursuant to G.S. 113-229(e);
  - (3) in the case of a renewable resource area, that the development will result in loss or significant reduction of continued long-range productivity that would jeopardize one or more of the water, food or fiber requirements of more than local concern identified in G.S. 113A-113(b) (3)a. to (b) (3)c.;
  - (4) in the case of a fragile or historic area, or other area containing environmental or natural resources of more than local significance, that the development will result in major or irreversible damage to one or more of the historic, cultural, scientific, environmental or scenic values or natural systems identified in G.S. 113A-113(b) (4)a. to (b) (4)h.;
  - (5) in the case of areas covered by G.S. 113A-113(b) (4) to 113A-113(b) (5), that the development will jeopardize the public rights or interests specified in said subdivision;
  - (6) in the case of natural hazard areas, that the development would occur in one or more of the areas identified in G.S. 113A-113 (b)a. to (b) (6)e. in such a manner as to unreasonably endanger life or property:
  - (7) in the case of areas which are or may be impacted by key facilities; that the development is inconsistent with the state guidelines or the local land use plans, or would contravene any of the provisions of Subdivisions (1) to (6) of this Subsection:
  - (8) in any case, that the development is inconsistent with the state guidelines as set forth in 15 NCAC 7I, or with the local land use plan.
- (B) In the absence of such findings, a permit shall be granted. The permit may be conditioned upon the applicant's amending his proposal to take

<sup>&</sup>lt;sup>122</sup>15 NCAC 7J, 0402.

whatever measures are reasonably necessary to protect the public interest with respect to the factors enumerated in Subsection (a) of this Regulation.

History Note: Statutory Authority G.S. 113A-120; Eff. March 15, 1978.

# APPENDIX A.13

SUBCHAPTER 7M - GENERAL POLICY GUIDELINES FOR THE COASTAL AREA <sup>123</sup>	10 T15.
SECTION .0100 - PURPOSE AND AUTHORITY	13
O101 AUTHORITY  These rules are promulgated pursuant to G.S. 113A-102(b), G.S. 113A-107 and G.S. 113A-124 by the North Carclina Coastal Resources Commission.	
History Note: Statutory Authority G.S. 113A-102(b); 113A-107; 113A-124; Eff. March 1, 1979.	21 22 23
.0102 PURPOSE  The purpose of these rules is to establish generally applicable objectives and policies to be followed in the public and private use of land and water areas within the coastal area of North Carolina.	28
History Note: Statutory Authority G.S. 113A-102(b); 113A-107; 113A-124; Eff. March 1, 1979.	32 33 34

## SECTION .0200 - SHORELINE EROSION POLICIES

41

It is hereby declared that the general welfare and public 45 interest require that development along the ocean and estuarine 46 shorelines be conducted in a manner that avoids loss of life, 47 property and amenities. It is also declared that protection of the recreational use of the shorelines of the state is in the 48 public interest. In order to accomplish these public purposes, 49 the planning of future land uses, reasonable regulations and public expenditures should be created or accomplished in a 50 coordinated manner so as to minimize the likelihood of damage to 51 private and public resources resulting from recognized coastal hazards.

History Note: Statutory Authority G.S. 113A-102 (b); 54 113A-107; 113A-124; 55 Eff. March 1, 1979. 56

## .0202 POLICY STATEMENTS

5.8

(a) Pursuant to Section 5, Article 14 of the North Carolina 60 Constitution, proposals for shoreline erosion control projects 61 shall avoid losses to North Carolina's natural heritage. All 62 means should be taken to identify and develop control measures that will not adversely affect estuarine and marine productivity. 63

(b) Nonstructural measures designed to minimize the loss of 64 private and public resources to erosion are preferred solutions 65 to erosion problems provided such measures are economically, 66 socially, or environmentally justified. Preferred nonstructural control measures for shoreline erosion shall include but not be 67 limited to AFC regulation, land use planning and land 68 classification, establishment of builling setback lines, subdivision regulations and management of vegetation. structural controls are selected in developing alternative plans 70 for crosion control a clear rationale should be presented and those structural control measures which have the least effect on 71 natural processes should be given prime consideration. [Note: 72 For the purpose of this policy beach nourishment projects are included with traditional structural control measures such revetments. The reason for this is that beach nourishment 74 projects are land disturbing activities that can drastically 75 alter the estuary (as a horrow area), the barrier island (through which pipelines will be laid) and the beach and nearshore 76 (through the replacement of aquatic bottoms with dry sand). ]

- (c) The State of North Carolina will encourage innovative 78 institutional programs and scientific research that will provide 79 for effective management of coastal shorelines.
- (d) The planning, development, and implementation of erosion 80 control projects will be coordinated with appropriate planning 81 agencies, affected governments and the interested public. 82 Maximum efforts will be made by the state to accommodate the interest of each interested party consistent with the project's 83 objectives.
- (e) The state will promote education of the public on the 84 dynamic nature of the coastal zone and on effective measures to 85 cope with our ever changing shorelines.

History	Note:	Statutory	Authority G.S.	113A-102(b);	88
		1 13A-107;	113A-124;		89
		Eff. March	1, 1979.		90

SECTION .0300 - SHOREPRONT ACCESS POLICIES	97
.0301 DECLARATION OF GENERAL POLICY  It is hereby declared to be the policy of the State of North Carolina to foster, protect, improve and ensure optimum access to recreational opportunities at beach areas consistent with public rights, rights of private property owners and the need to protect	102
natural resources from overuse. These policies reflect the position that in areas other than state parks, the responsibility of providing adequate beach access rests primarily with local units of government. Thus, the following policies are intended to supplement and strengthen any local efforts.	105
History Note: Statutory Authority G.S. 113A-102(b); 113A-107; 113A-124; Eff. March 1, 1979.	110 111 112
.0302 DEFINITIONS  The term "beach" as used in these policies is defined as areas extending from the mean low to the mean high water line and beyond this line to where either the growth of vegetation occurs,	117
or a distinct change in slope or elevation occurs, or riparian owners have specifically and <u>legally</u> restricted access above the mean high water line.	119
This definition is intended to describe those shorefront areas historically used by the public. Whether or not the public has rights in the defined areas above the MHR mark can only be answered by the courts. The public does have clear rights below	121
the MHW mark. The following policies recognize public use rights in the heach areas as defined but do not in any way require private property owners to provide public access to the beach.	123 124
History Note: Statutory Authority G.S. 113A-102(h); 113A-107; 113A-124; Pff. March 1, 1979.	127 128 129
.0303 POLICY STATEMENTS  (a) Development shall not interfere with the public's right of access to the shorefront where acquired through public acquisition, dedication, or customary use as established by the courts.	131 133 134
(b) The responsibility of insuring that the public can obtain adequate access to public trust resources or the ocean, sounds, rivers and tributaries is primarily that of local governments to be shared and assisted by state and federal government.	136

- (c) Public beach area projects funded by the state and federal 138 government will not receive initial or additional funds unless 139 provisions are made for adequate public access. This must 140 include access rights, adequate identification and adequate parking.
- (d) Policies regarding state and federal properties with 141 shorefront areas intended to be used by the public must 142 encourage, permit and provide public access and adequate parking so as to achieve maximum public use and benefit of these areas 143 consistent with establishing legislation.
- (e) State and federal funds for beach access will be provided 144 only to localities that also provide protection of the frontal 145 dunes.
- (f) The state should continue in its efforts to supplement and 146 improve highway, bridge and ferry access to and within the 20 147 county coastal area consistent with the approved local land use 148 plans. Further, the state should wherever practical work to add public fishing catwalks to appropriate highway bridges and should 149 incorporate catwalks in all plans for new construction and for 150 remodeling bridges. It is the policy of the state to seek repeal of ordinances preventing fishing from bridges except where public 151 safety would be compromised.
- (q) In order to avoid weakening the protective nature of 152 frontal dunes, no development will be permitted which would 153 involve the removal or relocation of frontal dune sand or frontal 154 dune vegetation, 15 NCAC 78 .0306(c). The sands held in the frontal dune are recognized as vital for the nourishment and 155 protection of ocean heaches.
  - (h) All land use plans and state actions to provide additional 156 shorefront access must recognize the need of providing access to 157 all socio-economic groups.

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History Note: Statutory Authority G.S. 113A-102(b); 160
113A-107; 113A-124; 161
Eff. March 1, 1979.
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## SECTION .0400 - COASTAL ENERGY POLICIES

169

.0401 DECLARATION OF GENERAL POLICY 171 It is hereby declared that the general welfare and public 173 interest require that a reliable source of energy be made 174 available to the citizens of North Carolina. It is further declared that the development of energy facilities within the 175 state can serve important regional and national interests. 176 However, unwise development of energy facilities can conflict with the recognized and equally important public interest that 177 rests in conserving and protecting the valuable land and water 178 resources of the state and nation, particularly coastal lands and waters. Therefore, in order to balance the public benefits 179 attached to necessary energy development against the need to 180 protect valuable coastal resources, the planning of future land uses and the exercise of regulatory authority shall assure that 181 the development of energy facilities shall avoid significant 182 adverse impact upon vital physical resources.

History Note: Statutory Authority G.S. 113A-102 (b): 185 113A-107; 113A-124; 186 Eff. March 1, 1979. 187

#### .0402 DEFINITIONS

189

(a) "Assessment" is an analysis which fully discusses the 191 environmental, economic and social consequences of a proposed 192 project. At a minimum, the assessment should include the following information:

a full discussion of the preferred site for the 195 (1) project: In all cases where the preferred site is 196 located within an AEC or on a barrier island, the applicant shall identify alternative sites considered 197 and present a full discussion (in terms of (2) through (8) of this Subsection 1 of the reasons why the chosen 198 location was deemed more suitable than another feasible 199 alternate site. If the preferred site is not located within an AEC or on a barrier island, the applicant 200 shall present reasonable evidence to support the proposed location over a feasible alternate site. In 201 those cases where an applicant chooses a site previously identified by the state as suitable for such 202 development and the site is outside an AFC or not on a 203 harrier island, alternative site considerations will not be required as part of this assessment procedure; 204 a full discussion of the economic impacts, (2)

positive and negative, of the proposed project;

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	discussion should focus on economic impacts to the	
	public sector and shall not be deemed to include	207
	matters that are purely internal to the corporate	
	operation of the applicant, and no proprietary or	
	confidential economic data will be required. This	209
	discussion shall include analysis of likely adverse	
	impacts upon the ability of any governmental unit to	210
		219
	furnish necessary services or facilities as well as	244
4.25	other secondary impacts of significance;	211
(3)	likely or probable adverse impacts on estuarine or	
	coastal resources based on industry experience;	213
<u>(</u> 4)	likely or probable adverse impacts on existing industry	
	or probable unreasonable <u>l</u> imitations on the	215
	availability of natural resources, particularly water,	
	for future industrial development, based on industry	216
	experience;	
(5)	likely or probable significant adverse impacts on	217
<b>-</b> ,	recreational uses and scenic resources, hased on	
	injustry experience:	_
<b>(</b> 6)	likely or probable risks of danger to human life or	219
7.07	property:	220
(7)	other specific data necessary for the various state and	
7 1)		
	federal agencies and commissions with jurisdiction to	222
	evaluate the consistency of the proposed project with	
	relevant standards and guidelines:	223
(8)	a specific demonstration that the proposed project is	
	consistent with relevant local land use plans and with	225
,	guidelines governing land uses in areas of	
	environmental concern.	226
<u>An</u> EIS	required under NEPA provisions or an EIA required under	228
existing	state regulations will satisfy this definition of	229
"assessmer	nt" if all issues listed in this Subsection are	
addressed	and it is submitted in sufficient time to be used to	230
	sequent state permit applications for the project.	231
	for energy facilities" are those energy facilities	232
	nuse of their size, magnitude and scope of impacts, have	
	ntial to significantly affect the coastal zone. Por	
	of this definition, major energy facilities shall	
	but are not necessarily limited to, the following:	235
		237
(1)	Any facility capable of refining oil:	240
7(5)	LPG-ING-SNG terminals and associated storage, handling	240
	or processing facilities:	2 4
73)	Any oil or gas storage facility that is capable of	241
	storing 15 million gallons or more on a single site;	242
(4)	Electric generating facilities 300 MGW or larger;	244
(5)	Thermal energy generation:	245

255

(6) Major pipelines 12 inches or more in diameter that 247 carry crude petroleum, natural gas, LNG-LPG or 248 synthetic gas.

History Note:	Statutory Authority G.S. 113A-102(b);	251
	113A-107; 113A-124;	252
	Eff. March 1, 1979.	253

## .0403 POLICY STATEMENTS

(a) The placement and operations of major energy facilities in 257 the North Carolina coastal zone shall be done in a manner that 258 allows for protection of the environment and local and regional 259 socio-economic goals. The placement and operation of such facilities shall be consistent with established state standards 260 and regulations and shall comply with local land use plans and 261

with quidelines for land uses in areas of environmental concern.

- (b) Applicants for major energy facilities to be located in 262 the North Carolina coastal zone shall, prior to construction, 263 make a full disclosure of all costs and benefits associated with 264 the project. This disclosure shall be prepared at the earliest feasible stage in planning for the project and shall be in the 265 form of an impact assessment.
- (c) Local governments shall not unreasonably restrict the 266 development of necesary energy facilities; however, they shall be 267 encouraged to develop those siting measures that will minimize 268 impacts to local resources.
- (d) In coastal shoreline areas which have recognized 269 recreational benefits or with identified access problems, those 270 major energy facilities that do not require shorefront access shall be sited inland of the coastal zone. In other instances 271 when shoreline portions of the coastal zone are necessary or 272 preferred locations, shoreline siting will be acceptable only if 273 it can be demonstrated that coastal waters will be adequately protected, the public's right to access will not be unreasonably 274 restricted, and all reasonable mitigating measures have been 275 taken to minimize impacts to AECs.

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History Note: Statutory Authority G.S. 113A-102 (b); 278
113A-107; 113A-124: 279
Eff. March 1, 1979. 280
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## APPENDIX A.14

## EXECUTIVE ORDER NUMBER 15

WHEREAS, the General Assembly of North Carolina, in passing the Coastal Area Management Act, has expressed its desire for a comprehensive, coordinated management system for the protection and orderly development of the coastal area; and,

WHEREAS, the stated goals of the Coastal Management Act are:

- (1) To preserve and manage the natural ecological conditions of the estuarine system, the barrier dune system, and the beaches, so as to safeguard and perpetuate their natural productivity and their biological, economic and aesthetic values:
- (2) To insure that the development or preservation of the land and water resources of the coastal area proceeds in a manner consistent with the capability of the land and water for development, use, or preservation based on ecological considerations;
- (3) To insure the orderly and balanced use and preservation of our coastal resources on behalf of the people of North Carolina and the nation;
  - (4) To establish policies, guidelines and standards for:
    - (i) Protection, preservation, and conservation of natural resources, including, but not limited to, water use, scenic vistas, and fish and wildlife; and management of transitional or intensely developed areas and areas especially suited to intensive use or development, as well as areas of significant natural value;
    - (ii) The economic development of the coastal area, including, but not limited to, conservation, location and design of industries, port facilities, commercial establishments and other developments;
    - (iii) Recreation and tourist facilities and parklands;
    - (iv) Transportation and circulation patterns for the coastal area, including major thoroughfares, transportation routes, navigation channels and harbors, and other utilities and facilities:
      - (v) Preservation and enhancement of the historic, cultural and scientific aspects of the coastal area;

- (vi) Protection of present common law and statutory public rights in the lands and waters of the coastal area;
- (vii) Any other purposes deemed necessary or appropriate to effectuate the policy of The Coastal Area Management Act; and

WHEREAS, the Coastal Resources Commission shall be responsible for the preparation, adoption, and amendment of the State guidelines for the coastal area, which shall consist of statements of objectives, policies, and standards to be followed in public and private use of land and water areas within the coastal area; and

WHEREAS, all local land use plans adopted pursuant to The Coastal Area Management Act within the coastal area shall be consistent with the State guidelines; and

WHEREAS, any State land policies governing the acquisition, use and disposition of land by State department and agencies shall take account of and be consistent with guidelines adopted under The Coastal Area Management Act, insofar as lands within the coastal area are concerned; and

WHEREAS, from and after the "permit changeover" date; all existing regulatory permits within the coastal area shall be administered in coordination and consultation with (but not subject to the veto of) the Coastal Resources Commission. No such existing permits within the coastal area shall be issued, modified, renewed or terminated except after consultation with the Commission;

NOW, THEREFORE, IT IS HEREBY ORDERED THAT:

<u>Section 1</u>. All State agencies shall take account of and be consistent to the maximum extent possible with the coastal policies, guidelines and standards contained in the State guidelines, with the local land use plans developed under the mandate of The Coastal Area Management Act, and with the North Carolina Coastal Plan prepared under the Federal Coastal Zone Management Act of 1972 in all regulatory programs, use and disposition of state-owned lands, financial assistance for public facilities, and encouragement and location of major public and private growth-inducing facilities.

Section 2. The Secretary of Natural Resources and Community Development and the Coastal Resources Commission shall ensure the opportunity for full participation by affected State agencies in the development of policies and guidelines for the coastal area prior to their adoption.

<u>Section 3</u>. All conflicts arising from the implementation of this order within the Department of Natural Resources and Community Development shall be resolved by the Secretary of that Department, and all conflicts over consistency between the administering coastal management agency (Department of Natural Resources and Community Development) and another department of State government shall be resolved by the Governor.

<u>Section 4</u>. This Executive Order shall be effective immediately.

APPENDIX A.15
OCEAN DISCHARGE CRITERIA

Subpart M—Ocean Discharge Criteria

Sec.

125.120 Scope and purpose.

125.121 Definitions.

Sec.
125.122 Determination of unreasonable
degradation of the marine environment.
125.123 Permit requirements.
125.124 Information required to be
submitted by applicant.

## § 125.120 Scope and purpose.

This subpart establishes guidelines for issuance of National Pollutant Discharge Elimination System (NPDES) permits for the discharge of pollutants from a point source into the territorial seas, the contiguous zone, and the oceans.

#### § 125.121 Definitions.

(a) "Irreparable harm" means significant undesirable effects occurring after the date of permit issuance which will not be reversed after cessation or modification of the discharge.

(b) "Marine environment" means that territorial seas, the contiguous zone and

the oceans.

(c) "Mixing zone" means the zone extending from the sea's surface to seabed and extending laterally to a distance of 100 meters in all directions from the discharge point(a) or to the boundary of the zone of initial dilution as calculated by a plume model approved by the director, whichever is greater, unless the director determines that the more restrictive mixing zone or another definition of the mixing zone is more appropriate for a specific discharge.

(d) "No reasonable alternatives" means: (1) No land-based disposal sites, discharge point(s) within internal waters, or approved ocean dumping aites within a reasonable distance of the site of the proposed discharge the use of which would not cause unwarranted economic impacts on the discharger, or, notwithstanding the availability of such

sites.

(2) On-site disposal is environmentally preferable to other alternative means of disposal after consideration of: (i) The relative-environmental harm of disposal on-site, in disposal sites located on land, from discharge point(s) within internal waters, or in approved ocean dumping sites, and

(ii) The risk to the environment and human safety posed by the transportation of the pollutants.

(e) "Unreasonable degradation of the marine environment" means: (1) Significant adverse changes in ecosystem diversity, productivity and stability of the biological community within the area of discharge and surrounding biological communities,

(2) Threat to human health through direct exposure to pollutants or through consumption of exposed aquatic

organisms, or

(3) Loss of esthetic, recreational, scientific or economic values which is unreasonable in relation to the benefit derived from the discharge.

#### § 125.122 Determination of unreasonable degradation of the marine environment.

(a) The director shall determine whether a discharge will cause unreasonable degradation of the marine environment based on consideration of: (1) The quantities, composition and potential for bioaccumulation or persistence of the pollutants to be discharged;

(2) The potential transport of such pollutants by biological, physical or

chemical processes:

(3) The composition and vulnerability of the biological communities which may be exposed to such pollutants, including the presence of unique species or communities of species, the presence of species identified as endangered or threatened pursuant to the Endangered Species Act, or the presence of those species critical to the structure or function of the ecosystem, such as those important for the food chain;

(4) The importance of the receiving water area to the surrounding biological community, including the presence of spawning sites, nursery/forage areas, migratory pathways, or areas necessary for other functions or critical stages in

the life cycle of an organism.

(5) The existence of special aquatic sites including, but not limited to marine sanctuaries and refuges, parks, national and historic monuments, national seashores, wilderness areas and coral

(6) The potential impacts on human health through direct and indirect

pathways;

(7) Existing or potential recreational and commercial fishing, including finfishing and shellfishing;

(8) Any applicable requirements of an approved Coastal Zone Management

(9) Such other factors relating to the effects of the discharge as may be appropriate;

(10) Marine water quality criteria developed pursuant to section 304(a)(1).

(b) Discharges in compliance with sections 301(g), 301(h), or 316(a) variance requirements or State water quality standards shall be presumed not to cause unreasonable degradation of the marine environment, for any specific pollutants or conditions specified in the variance or the standard.

#### § 125.123 Permit requirements.

(a) If the director on the basis of available information including that supplied by the applicant pursuant to

§ 125.124 determines prior to permit issuance that the discharge will not cause unreasonable degradation of the marine environment after application of any necessary conditions specified in § 125.123(d), he may issue an NPDES permit containing such conditions.

(b) If the director, on the basis of available information including that supplied by the applicant pursuant to § 125.124 determines prior to permit issuance that the discharge will cause unreasonable degradation of the marine environment after application of all possible permit conditions specified in § 125.123(d), he may not issue an NPDES permit which authorizes the discharge of

pollutants.

(c) If the director has insufficient information to determine prior to permit issuance that there will be no unreasonable degradation of the marine environment pursuant to § 125.122, there shall be no discharge of pollutants into the marine environment unless the director on the basis of available information, including that supplied by the applicant pursuant to § 125.124 determines that: (1) Such discharge will not cause irreparable harm to the marine environment during the period in which monitoring is undertaken, and

(2) There are no reasonable alternatives to the on-site disposal of

these materials, and

(3) The discharge will be in compliance with all permit conditions established pursuant to paragraph (d) of

(d) All permits which authorize the discharge of pollutants pursuant to paragraph (c) of this section shall: (1) Require that a discharge of pollutants will: (A) following dilution as measured at the boundary of the mixing zone not exceed the limiting permissible concentration for the liquid and suspended particulate phases of the waste material as described in section 227.27(a) (2) and (3), section 227.27(b), and section 227.27(c) of the Ocean Dumping Criteria; and (B) not exceed the limiting permissible concentration for the solid phase of the waste material or cause an accumulation of toxic materials in the human food chain as described in sections 227.27 (b) and (d) of the Ocean Dumping Criteria;

(2) Specify a monitoring program, which is sufficient to assess the impact of the discharge on water, sediment, and biological quality including, where appropriate, analysis of the bioaccumulative and/or persistent impact on aquatic life of the discharge;

(3) Contain any other conditions, such as performance of liquid or suspended particulate phase bioaccumulation tests, seasonal restrictions on discharge,

process modifications, dispersion of pollutants, or schedule of compliance for existing discharges, which are determined to be necessary because of local environmental conditions, and

(4) Contain the following clause: In addition to any other grounds specified herein, this permit shall be modified or revoked at any time if, on the basis of any new data, the director determines that continued discharges may cause unreasonable degradation of the marine environment.

#### § 125.124 Information required to be submitted by applicant.

The applicant is responsible for providing information which the director may request to make the determination required by this subpart. The director may require the following information as well as any other pertinent informaton: (a) An analysis of the chemical constituents of any discharge;

(b) Appropriate bioassays necessary to determine the limiting permissible concentrations for the discharge;

(c) An analysis of initial dilution;

(d) Available process modifications which will reduce the quantities of pollutants which will be discharged;

(e) Analysis of the location where pollutants are sought to be discharged, including the biological community and the physical description of the discharge facility;

(f) Evaluation of available alternatives to the discharge of the pollutants including an evaluation of the possibility of land-based disposal or disposal in an approved ocean dumping site.

[FR Doc. 80-30723 Filed 10-2-80; 8:45 am] BILLING CODE 6560-01-M

## APPENDIX A.16

## BIBLIOGRAPHY124

The references cited in this bibliography are classified under the following topics:

- A.16.I. Coastal Zone Management (CZM) and Programs
- A.16.I.A. General
  - B. State CZM Program Development Organization and Administration
  - C. State Program Documents
- A.16.II. Federal Consistency and Intergovernmental Relations
- A.16.III. Transportion Policy and Coastal Zone Management
- A.16.IV. Ports
- A.16.V. Land Transportion Facility Impacts and the Coastal Environment
- A.16.VI. Land Use and Coastal Zone Management
- A.16.VII. Bibliographies

## COASTAL ZONE MANAGEMENT AND PROGRAMS

## A. General

- Armstrong, John and Peter Ryner. <u>Coastal Waters: A Management Analysis</u>. Ann Arbor, Michigan: Ann Arbor Science Publishers, 1978.
- Brahtz, J. R. Peel, ed. <u>Coastal Zone Management: Multiple Use With Conservation</u>. New York: John Wiley and Sons, Inc., 1972.
- Ditton, Robert, John Seymour and Gerald C. Swanson. <u>Coastal Resources Management: Beyond Bureaucracy and the Market</u>. Lexington, Massachusetts: L. C. Heath and Company, 1977.

<sup>124</sup>Transportation Policy and Coastal Zone Management: A Selected <u>Bibliography</u>, P-164, Vance Bibliographies, Center for Urban and Regional Research, Old Dominion University, October 1978.

- Hite, James C. and James M. Stepp. <u>Coastal Zone Resources Management</u>. Washington, D.C.: Praeger Publishers, 1971.
- Johnson, Ralph W. and Richard J. Goldsmith. <u>Coastal Zone Law and Policy</u>. Seattle: University of Washington Law School, 1977.
- Mandelker, Daniel R. and Thea A. Sherry. "The National CZM Act of 1972,"
  Urban Law Annual. St. Louis: Washington University School of Law, 1974.
- Ponder, Hal. <u>Survey of State Coastal Management Laws</u>. CRC Publication No. 4, Baltimore: Chesapeake Research Consortium, 1974.
- U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Office of Coastal Zone Management. Who's Minding the Shore? A Citizen's Guide to Coastal Zone Management. Prepared by Natural Resources Defense Council, Inc., Washington, D.C., August 1976.
- U.S. General Accounting Office. <u>The Coastal Zone Management Program: An Uncertain Future</u>. Washington, D.C.: U.S. Government Printing Office, December 1976.

# B. STATE CZM PROGRAM DEVELOPMENT, ORGANIZATION AND ADMINISTRATION

- Armstrong, John, et al. <u>Coastal Zone Management: The Process of Program Development</u>. Sandwich, Massachusetts: Coastal Zone Management Institute, 1974.
- Griffin, William L. "Legal Bases for State Coastal Zone Management," Marine Technology Society Journal, Vol. 6, March-April 1972.
- Heikoff, Joseph M. <u>Coastal Resources Management: Institutions and Programs</u>. Ann Arbor, Michigan: Ann Arbor Science Publishers, 1977.
- Mogulof, Melvin B. Saving the Coast-California's Experiment in Intergovernmental Land Use Control. The Urban Institute. Lexington, Massachusetts: Lexington Books, 1975.
- Schoop, E. Jack. "Coastal Zone Plan Implementation," <u>Journal of Urban Planning</u> and Development Division, American Society of Civil Engineers. May 1978.
- Scott, Stanley. <u>Governing California's Coast</u>. Berkeley: Institute of Governmental Studies, University of California, 1975.
- Swanson, Gerald C. "Coastal Zone Management From an Administrative Perspective: A Case Study of the San Francisco Bay Conservation and Development Commission," Coastal Zone Management Journal. Vol. 2, 1975.
- U.S. Department of Commerce, National Oceanic and Atmospheric Administration. "State Coastal Management Programs--Development and Approval," <u>Federal Register</u>, Vol. 43, No. 41, 1 March 1978.

- U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Office of Coastal Zone Management. Threshold Papers. Washington, D.C.
- Warren, Robert, Mitchell L. Moss, Robert L. Bish and Lyle E. Craine. <u>Designing Coastal Management Agencies: Problems in Allocating Coastal Resources</u>.

  Los Angeles: University of Southern California, 1972.

## C. STATE PROGRAM DOCUMENTS

- State of Washington, Department of Ecology. <u>Washington State Coastal Zone</u> Management Program. Olympia, Washington.
- U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Office of Coastal Zone Management. <u>California Coastal Management Program</u> <u>and Final Environmental Impact Statement</u>. Washington, D.C.
- U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Office of Coastal Zone Management. Hawaii Coastal Management Program and Draft Environmental Impact Statement. Washington, D.C.
- U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Office of Coastal Zone Management. Maine's Coastal Management Program and Draft Environmental Impact Statement. Washington, D.C.
- U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Office of Coastal Zone Management. <u>Maryland Coastal Management Program and Draft Environmental Impact Statement</u>. Washington, D.C.
- U.S. Department of Commerce, National Oceanic and Atmospheric Administration,
  Office of Coastal Zone Management. Massachusetts Coastal Zone Management
  Program and Final Environmental Impact Statement. Washington, D.C.
- U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Office of Coastal Zone Management. <u>Michigan Coastal Management Program and Final Environmental Impact Statement</u>. Washington, D.C.
- U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Office of Coastal Zone Management. New Jersey Coastal Management Program and Draft Environmental Impact Statement-Bay and Ocean Shore Segment. Trenton, New Jersey.
- U.S. Department of Commerce, National Oceanic and Atmospheric Administration,
  Office of Coastal Zone Management. North Carolina Coastal Management
  Program and Draft Environmental Impact Statement. Washington, D.C.
- U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Office of Coastal Zone Management. Oregon Coastal Management Program and Final Environmental Impact Statement. Washington, D.C.

- U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Office of Coastal Zone Management. Puerto Rico Coastal Management Program and Final Environmental Impact Statement. Washington, D.C.
- U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Office of Coastal Zone Management. Rhode Island Coastal Management Program and Final Environmental Impact Statement. Washington, D.C.
- U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Office of Coastal Zone Management. California Resources Agency, Bay Conservation and Development Commission. San Francisco Bay Plan. Sacramento, California.
- U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Office of Coastal Zone Management. <u>Virgin Islands Coastal Management</u> Program and Final Environmental Impact Statement. Washington, D.C.
- U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Office of Coastal Zone Management. <u>Wisconsin Coastal Management Program and Final Environmental Impact Statement</u>. Washington, D.C.

## II. FEDERAL CONSISTENCY AND INTERGOVERNMENTAL RELATIONS

- Bosselman, Fred, Duane R. Feirrer and Charles L. Sieman. The Permit Explosion:
  Coordination of the Proliferation. Washington, D.C.: The Urban Land
  Institute, 1976.
- Brewer, William C., Jr. "The Concept of State and Local Relations Under the CZMA," <u>William and Mary Law Review</u>. Vol. 16, Summer 1975.
- Brewer, William C., Jr., "Federal Consistency and State Expectations," <u>Coastal Zone Management Journal</u>, Vol. 2, 1976.
- Dolgin, Erica L. and Thomas G. P. Guilbert, eds. <u>Federal Environmental Law.</u> Environmental Law Institute. St. Paul, Minnesota: West Publishing Company, 1974.
- "Federal Power as a Limit Upon State Control of Marine Resources," Main Law Affecting Marine Resources. Vol. 4, Orono, ME: University of Maine School of Law, 1969.
- Gendler, Mickey. "Towards Better Use of Coastal Resources: Coordinated State and Federal Planning Under the CZMA," <u>The Georgetown Law Journal</u>, Vol. 65, April 1977.
- Hershman, Marc J. "Achieving Federal-State Coordination in Coastal Resources Management," <u>William and Mary Law Review</u>. Vol. 16, Summer 1975.
- Hershman, Marc J. and James C. Folkenroth. "Coastal Zone Management and Intergovernmental Coordination," <u>Oregon Law Review</u>, Vol. 54, No. 1, 1975.

- Hershman, Marc J. and Dowell R. Fotenot. "Local Regulation of Pipeline Sittings and the Doctrines of Federal Preemption and Supremacy," Louisiana Law Review, Vol. 36, Summer 1976.
- Knecht, R. W. "Coastal Zone Management--A Federal Perspective," <u>Coastal Zone Management Journal</u>, Vol. 1, Fall 1973.
- Oregon, Executive Department, Intergovernmental Relations Division. Intergovernmental Coordination: Perils and Potentials for Coastal States. By Leslie Lehman and Clark Worth, 1977.
- Schoenbaum, Thomas J. and Ronald H. Rosenbery. "Legal Implementation of CZM: The North Carolina Model--Part II-C," Duke Law Journal, March 1976.
- U.S. Advisory Council on Intergovernmental Relations. <u>The Intergovernmental</u> Grant System as Seen by Local, State and Federal Officials. Washington, D.C.: U.S. Government Printing Office, March 1977.
- U.S. Advisory Council on Intergovernmental Relations. <u>Substate Regionalism</u> and the Federal System, Vols. 1-6. Washington, D.C.: U.S. Government Printing Office, 1973-1974.
- U.S. Department of Commerce, National Oceanic and Atmospheric Administration. "Federal Consistency With Approved Coastal Management Programs," Federal Register, Vol. 43, No. 49, 13 March 1978.
- U.S. Department of Housing and Urban Development, Office of Policy Development and Research. State Planning: Intergovernmental Policy Coordination. Washington, D.C.: U.S. Government Printing Office, August 1976.
- Washington, Department of Ecology. <u>Operational Guidelines for Federal Consistency</u>, July 1976.
- Zile, Zigurds L. "Some Legal Issues in the Coastal Zone Management Act: Grant-In-Aid Aspects--Part I and II," <u>Coastal Zone Management Journal</u>, Vol. 3, No. 1 and 2, 1976.

## III. TRANSPORTATION POLICY AND COASTAL ZONE MANAGEMENT

- Brower, David. Access to the Nation's Beaches: Legal and Planning Perspectives. UNC-SG-77-18. Raleigh, North Carolina: University of North Carolina Sea Grant, February 1978.
- Clark, John. <u>The Sanibel Report</u>. The Conservation Foundation. Washington, D.C., 1976.
- Desimond, Vincent R. and Agnes Zierenberg. "Transportation Strategies for Parks and Recreation," <u>Journal of the Urban Planning and Development Division</u>. American Society of Civil Engineers, May 1978.

- Dickert, Thomas J. "Transportation Analysis in the Coastal Zone: Subregional Considerations for Local Coastal Plans," (CUIMR-Z-094) in <u>University of California Sea Grant College Program Annual Report 1975-1976</u>. No. UC-IMR-77-04. La Jolla, California: University of California, Institute of Marine Resources.
- Hammer, Philip, et al. <u>Transportation and Land Development Policy</u>. TRB/TRR-565. NTIS No. 253 180. National Research Council, Transportation Research Board. Washington, D.C., 1976.
- Lima, Peter M., Theodore H. Poister and Baradley T. Hargroves. "Transportation and Substate Regionalism," Traffic Quarterly, Vol. 32, No. 1, January 1978.
- MacCutheon, Edward M. "Traffic and Transport Needs at the Land-Sea Interface," in Coastal Zone Management: Multiple Use with Conservation, J. R. Peel Brahtz, ed. New York: John Wiley and Sons, Inc.
- Maryland, Department of Transportation. <u>Baltimore Region Coastal Zone Management Study: Transportation Element.</u> By Joel B. Hirsh, October 1977.
- New York, Urban Development Corporation. <u>Wateredge Development Study: Hudson</u> River Edge Development Proposal. May 1971.
- Platt, Rutherford H. "Coastal Hazards and National Policy: A Jury-Rig Approach,"
  American Institute of Planners Journal. Vol. 44, No. 2, April 1978.
- Symonds, R. J. <u>Equity and Efficiency in State Coastal Resource Management:</u>
  An Application to Urban Recreational Policy. Los Angeles: Center for Public Affairs, University of Southern California, 1975.
- U.S. Citizens Advisory Council on Environmental Quality. From Rails to Trails. Washington, D.C.: U.S. Government Printing Office No. 040-000-00330-4., February 1975.
- U.S. Department of Commerce, National Oceanic and Atmospheric Administration,
  Office of Coastal Zone Management. Coastal Recreation: A Handbook for
  Planners and Managers. By Robert B. Ditton and Mark Stephens, Washington,
  D.C., January 1976.
- U.S. Department of Transportation. <u>Bicycles and Pedestrian Facilities in Federal Aid Highway Programs</u>. Washington, D.C., 1974.
- Virginia, Department of Conservation and Economic Development. <u>False Cape</u> State Park Transportation Access Study. January 1975.

#### IV. PORTS

American Society of Civil Engineers, Waterways, Harbors, and Coastal Engineering Division, Task Committee on Safety and Environmental Guidelines for LNG Terminals, Committee on Ports and Harbors. Source Book on Environmental and Safety Considerations for Planning and Design of LNG Marine Terminals. New York 1976.

- Bragaw, Louis K., Henry S. Marcus, Garry G. Raffele and James R. Townley.

  The Challenge of Deepwater Terminals. Lexington, Massachusetts: Lexington Books, D. C. Heath and Company, 1975.
- Brockel, Harry C. and Eric Schenker. <u>Port Planning and Development as Related</u> to Problems of U.S. Ports and the U.S. Coastal Environment. Cambridge, Maryland: Cornell Maritime Press, 1974.
- Erail, Richard K. and James Hughes. <u>Transportation/Marine Ecosystem Analysis Program</u>. New York Sea Grant Institute. NYSSGP-AM-77-005.
- Hershman, Marc J., Robert F. Goodwin, Andrew A. Ruotsala, Maureen McCrea and Yehuda Haywith. Ports and Coastal Management. Coastal Resource Program, Institute of Marine Studies, University of Washington. OCZM, NOAA, USDOC, January 1978.
- James, W. P. and R. W. Hann, Jr. <u>Environmental Impact of a Supertanker Port.</u>
  Offshore Technology Conference, 6200 North Central Expressway. Dallas,
  Texas, April 1973.
- Langlois, E. "Port Authorities View State Coastal Management Programs," Coastal Zone Management Journal, Vol. 2, No. 2, 1975.
- Marcus, Henry, James E. Short, John C. Kuypers, and Paulo O. Roberts. <u>Federal Port Policy in the U.S.</u> Cambridge, Massachusetts: MIT Press, 1976.
- Moss, Mitchell L. "The Urban Port: A Hidden Resource for the City and the Coastal Zone," <u>Coastal Zone Management Journal</u>, Vol. 2, No. 3, 1976.
- Nathan Associates, Inc. <u>U.S. Deepwater Port Study</u>. Alexandria, Virginia, 1972.
- Port Development in the United States. Panel on Future Port Requirements of the U.S. Maritime Transportation Research Board, Commission on Sociotechnical Systems. National Academy of Sciences. National Research Council, Washington, D.C., 1976.
- Stone, James H. "An Evaluation of Louisiana Superport Studies and Implications for Coastal Zone Management," <u>Coastal Zone Management Journal</u>, Vol. 3, No. 1, 1976.
- U.S. Comptroller General. <u>Potential for Deepwater Port Development in the U.S. CMD-78-9</u>. Washington, D.C.: U.S. Government Printing Office, April 5, 1978.
- U.S. Department of Transportation, Office of Deepwater Ports. <u>Atlantic Coast Deepwater Ports Study</u>, Washington, D.C., July 1978.
- Viveiros, George F., Jr. "Role of USCG in the Operation and Design of Deepwater Ports," <u>Marine Technology Society Journal</u>, Vol. 13, No. 4, October 1976.

# V. LAND TRANSPORTATION FACILITY IMPACTS AND THE COASTAL ENVIRONMENT

- Barrier Island Workshop. <u>Impact of Federal Agencies on Barrier Islands</u>. Preliminary Draft. Suite 300, 1717 Massachusetts Ave., N.W., Washington, D.C., September 1977.
- Bell, J. P. A. "The Convergence of Technology, Energy and Environmental Considerations: NOAA's Coastal Energy Impact Program," Marine Technology Society Journal, Vol. 10, No. 8, October-November 1976.
- Brower, David, Francis Parker and Dirk Frankenberg. <u>Ecological Determinants</u> of Coastal Area Management. University of North Carolina Sea Grant Publication UNC-76-05, 1976.
- Clark, John. <u>Coastal Ecosystems: Ecological Considerations for Management of the Coastal Zone</u>. The Conservation Foundation, Washington, D.C., 1974.
- Coastal Effects of Offshore Energy Systems. U.S. Congress, Office of Technology Assessment, November 1976.
- Curtis C. Harris Associates, Inc. Evaluation of Regional Economic and Environmental Effects of Alternative Highway Systems. Washington, D.C., 1974.
- Mitchell, James K. "Onshore Impacts of Scottish Offshore Oil: Planning Implications for the Middle Atlantic States," American Institute of Planners Journal, Vol. 42, No. 4, October 1974.
- Moore, S. F. and B. P. Schrader. Ecological Analysis of Hypothetical Oil
  Spills Occurring in the Near Shore Water of Long Island, New York.
  Institute of Environmental Sciences: 21st Annual Technical Meeting.
  Vol. I, Energy and the Environment. Institute of Environmental Sciences,
  Mt. Prospect, Illinois, 1975.
- U.S. Department of Commerce, National Oceanic and Atmospheric Administration,
  Office of Coastal Zone Management. <u>Coastal Facility Guidelines</u>. Washington, D.C., August 1976.
- U.S. Department of Transportation. <u>Environmental Assessment Notebook Series.</u>
  DOT P5600.4. Washington, D.C., 1975.
- U.S. Department of Transportation. <u>Special Areas Analysis</u>. Washington, D.C., April 1973.
- U.S. Department of Transportation, Office of Environmental Policy. <u>Highway</u> Environment Reference Book. Washington, D.C., 1970.
- U.S. Department of Transportation, Office of Program and Policy Planning. Guide for Highway Impact Studies. Washington, D.C., 1973.

- U.S. Department of Transportation, Federal Highway Administration, National Highway Institute. <u>Ecological Impacts of Proposed Highway Improvements</u>. Washington, D.C., August 1975.
- Warren, Robert and P. Jensen. <u>Assessing Local Governmental Capacities, Related</u>
  to Onshore Impacts from Mid-Atlantic OCS Development. Discussion Paper,
  Council of University Institutes for Urban Affairs Annual Meeting, March
  1977.

## VI. LAND USE AND COASTAL ZONE MANAGEMENT

- American Institute of Planners, Environmental Planning Department, Conference Proceedings. <u>Defining Cultural Environmental Areas</u>. Washington, D.C., August 1974.
- Baker, Earl J. and Joe Gordon McPhee. Land Use Management and Regulations in Hazardous Areas: A Research Assessment. Boulder, Colorado: Institute of Behavioral Science, University of Colorado Program on Technology, Environment and Man. Monograph. No. NSF RA-E-75-008.
- Baram, Michael S. <u>Environmental Law and the Siting of Facilities: Issues in Land: Land Use and Coastal Zone Management</u>. Cambridge, Massachusetts: Ballinger Publishing Company, 1976.
- Beltrami, E. and T. O. Carroll. <u>A Land Use Planning Model for CZM</u>. Nassau/ Suffolk Regional Board, Stony Brook, New York, August 1976.
- Bosselman, Fred P., Duane Feurer and Tobin M. Richter. <u>Federal Land Use Regulation</u>. New York City, New York: Practicing Law Institute, 1977.
- Coel, B. J. <u>Planning for Shoreline and Water Uses</u>. Kingston, R.I.: University of Rhode Island Marine Advisory Service, 1974.
- Ducsik, Dennis W. <u>Shoreline for the Public</u>. Cambridge, Massachusetts: MIT Press, 1974.
- Pedrick, John L., Jr. "Land Use Control in the Coastal Zone: The Delaware Example," Coastal Zone Management Journal, Vol. 2, No. 4, 1976.
- Roberts, James S. and Cheryl Baxter. "Managing Coastal Conflicts: A Paradigm of State Land Use Planning," <u>Environmental Comment</u>, October 1977.
- Sabatier, Paul A. "Regulating Development Along the California Coast," Journal of Soil and Water Conservation, Vol. 31, (4), July 1976.
- Sabatier, Paul A. "State Review of Local Land-Use Decisions: The California Coastal Commissions," <u>Coastal Zone Management Journal</u>, Vol. 3, No. 3, 1977.
- Siuta, R. A. "Comprehensive Land Use Planning--Its Development and Potential Impact on Coastal Zone Management," <u>Maritime Affairs Journal</u>, December 1973.

- State Laws and Regulations: A Guide to Environmental Legislation in the Fifty
  States and the District of Columbia. Environmental Information Center,
  New York, New York, 1976.
- U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Office of Coastal Zone Management. Methods of Control of Land and Water Uses in the Coastal Zone. NTIS PB 249799, by Anne Berger.
- U.S. Department of Housing and Urban Development. Federal Insurance Administration. Statutory Land Use Control Enabling Authority in the Fifty States. HUD-FIA-179. Washington, D.C., 1976.

## VII. BIBLIOGRAPHIES

- Berenson, Laura and Julia Rogoff. Annotated Bibliography on Land Use in Selected Areas. Princeton, New Jersey: Center for Environmental Studies. Woodrow Wilson School of Public and International Affairs, Princeton University, June 1976.
- "Coastal Zone Management," Part C of "Bibliography on Marine Affairs 1," Ocean Management, Vol. 2, 1974.
- D'Ambrosi, Joan. <u>Coastal Land Use: A Selected Bibliography</u>. Monticello, Illinois: Council of Planning Librarians, Exchange Bibliography #685, 1974.
- Florida, Department of Natural Resources. Coastal Coordinating Council. "Coastal Zone Management: A Bibliography," Newsletter, May 1975.
- Heikoff, Joseph M. <u>Shorelines and Beaches in Coastal Management: A Bibliography</u>. Monticello, Illinois: Council of Planning Librarians, Exchange Bibliography #876, 1975.
- Jenks, B., J. Breadon and J. Soreason. <u>Coastal Zone Bibliography: Citations</u> to Documents on Planning Resource Management and Impact Assessment. University of California Institute of Marine Resources IMR Ref. 76-8, June 1976.
- Passero, B. and M. J. Seale. <u>Coastal Zone Management: Focus on New England:</u>
  <u>An Annotated Selected Bibliography</u>. <u>Massachusetts Institute of Technology</u>,
  <u>Sea Grant Project Office Report</u>, February 15, 1976. MITSG-75-21.
- <u>Sea Grant Publications Index 1977.</u> University of Rhode Island. National Sea Grant Depository, January 1978.
- U.S. Department of Commerce, National Oceanic and Atmospheric Administration. Environmental Data Service. <u>Packaged Literature Search 77-4: The Coastal</u> Zone. 2nd Edition. Washington, D.C., 1977.

- U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Office of Coastal Zone Management. Coastal Zone Information Center Bibliography on Land Use. Washington, D.C., July-December, 1977.
- U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Office of Coastal Zone Management. Coastal Zone Information Center Bibliography on Planning and Management. Washington, D.C., July-December 1976.
- U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Office of Coastal Zone Management. <u>Coastal Zone Information Center Bibliography on Ports</u>. Washington, D.C., 1976.
- U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Office of Coastal Zone Management. <u>Coastal Zone Management Annotated Bibliography</u>. Washington, D.C., 1977.
- U.S. Department of Transportation. "Annotated Bibliography," <a href="Environmental Assessment Reference Book: Notebook No. 6">Environmental Assessment Reference Book: Notebook No. 6</a>. DOT P 5600.4. Washington, D.C., 1975.

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#### CEIP Publications

- Hauser, E. W., P. D. Cribbins, P. D. Tschetter, and R. D. Latta. Coastal Energy Transportation Needs to Support Major Energy Projects in North Carolina's Coastal Zone. CEIP Report #1. September 1981. \$10.
- 2. P. D. Cribbins. A Study of OCS Onshore Support Bases and Coal Export Terminals. CEIP Report #2. September 1981. \$10.
- Tschetter, P. D., M. Fisch, and R. D. Latta. An Assessment of Potential Impacts of Energy-Related Transportation Developments on North Carolina's Coastal Zone. CEIP Report #3. September 1981. \$10. (Available spring 1982)
- 4. Cribbins, P. S. An Analysis of State and Federal Policies Affecting Major Energy Projects in North Carolina's Coastal Zone. CEIP Report #4. September 1981. \$10.
- 5. Brower, David, W. D. McElyea, D. R. Godschalk, and N. D. Lofaro. Outer Continental Shelf Development and the North Carolina Coast: A Guide for Local Planners. CEIP Report #5. August 1981. \$10.
- 6. Rogers, Golden and Halpern, Inc., and Engineers for Energy and the Environment, Inc. Mitigating the Impacts of Energy Facilities; A Local Air Quality Program for the Wilmington, N.C. Area. CEIP Report #6. September 1981. \$10.
- 7. Richardson, C. J. (editor). Pocosin Wetlands: an Integrated Analysis of Coastal Plain Freshwater Bogs in North Carolina. Stroudsburg (Pa): Hutchinson Ross. 364 pp. \$25. Available from School of Forestry, Duke University, Durham, N. C. 27709. (This proceedings volume is for a conference partially funded by N. C. CEIP. It replaces the N. C. Peat Sourcebook in this publication list.)
- 8. McDonald, C. B., and A. M. Ash. Natural Areas Inventory of Tyrrell County, N. C. CEIP Report #8. October 1981. \$10 for all requests.
- 9. Fussell, J., and E. J. Wilson. Natural Areas Inventory of Carteret County, N. C. CEIP Report #9. October 1981. \$10 for all requests.
- 10. Nyfong, T. D. Natural Areas Inventory of Brunswick County, N. C. CEIP Report #10. October 1981. \$10 for all requests.
- 11. Leonard, S. W., and R. J. Davis. Natural Areas Inventory for Pender County, N. C. CEIP Report #11. October 1981. \$10 for all requests.

NOTE: Please note renumbering of reports 5-10.

